

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA  
ALEXANDRIA DIVISION**

SAMSUNG DISPLAY CO., LTD.

Plaintiff,

v.

BOE TECHNOLOGY GROUP CO., LTD.,  
MIANYANG BOE OPTOELECTRONICS  
TECHNOLOGY CO., LTD., ORDOS  
YUANSHENG OPTOELECTRONICS CO.,  
LTD., CHENGDU BOE  
OPTOELECTRONICS TECHNOLOGY  
CO., LTD., CHONGQING BOE  
OPTOELECTRONICS TECHNOLOGY  
CO., LTD., WUHAN BOE  
OPTOELECTRONICS TECHNOLOGY  
CO., LTD., and YUNNAN INVENSIGHT  
OPTOELECTRONICS TECHNOLOGY  
CO., LTD. f/k/a/ BMOT f/k/a KUNMING  
BOE DISPLAY TECHNOLOGY.

Defendants.

Civil Action No.

JURY TRIAL DEMANDED

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Samsung Display Co., Ltd. (“Samsung Display” or “Plaintiff”), by and through the undersigned attorneys, complains and alleges the following against Defendants BOE Technology Group Co., Ltd., Mianyang BOE Optoelectronics Technology Co., Ltd., Ordos Yuansheng Optoelectronics Co., Ltd., Chengdu BOE Optoelectronics Technology Co., Ltd., Chongqing BOE Optoelectronics Technology Co., Ltd., Wuhan BOE Optoelectronics Technology Co., Ltd., and Yunnan Invensight Optoelectronics Technology Co., Ltd. f/k/a BMOT f/k/a Kunming BOE Display Technology (together, “BOE” or “Defendants”).

**NATURE OF THE ACTION**

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.*

2. Samsung Display has filed this lawsuit to respond to Defendants' unlawful infringement of Samsung Display's patented inventions and to obtain damages and other relief.

**THE PARTIES**

3. Plaintiff Samsung Display is a corporation organized and existing under the laws of the Republic of Korea, with its principal place of business at 1, Samsung-ro, Giheung-gu, Yongin-si, Gyeonggi-do, 17113, Republic of Korea. Samsung Display is a market leader in the research, development, and manufacture of organic light emitting diode ("OLED") displays.

4. Upon information and belief, BOE Technology Co., Ltd. ("BOE Beijing") is a corporation organized and existing under the laws of the People's Republic of China with its principal place of business located at No. 12 Xihuanzhong RD, BDA, Beijing, 100176, P.R. China.

5. Upon information and belief, Mianyang BOE Optoelectronics Technology Co., Ltd. ("Mianyang BOE") is a corporation organized and existing under the laws of the People's Republic of China with a principal place of business located at No. 198 Kefa Road, Hi-Tech Zone, Mianyang, P.R. China. Upon information and belief, Defendant BOE Beijing owns a controlling stake in Mianyang BOE.

6. Upon information and belief, Ordos Yuansheng Optoelectronics Co., Ltd. ("Ordos BOE") is a corporation organized and existing under the laws of the People's Republic of China, having a principal place of business at No. 37 Science RD, Equipment Manufacturing Base, Dongsheng District, Ordos, Inner Mongolia Autonomous Region, P.R. China. Upon information and belief, Ordos BOE is a subsidiary of BOE Beijing.

7. Upon information and belief, Chengdu BOE Optoelectronics Technology Co., Ltd. ("Chengdu BOE") is a corporation organized and existing under the laws of the People's Republic of China, having a principal place of business at No. 1188 Cooperation RD, Hi-tech Zone (west

area), Chengdu, Sichuan, P.R. China. Upon information and belief, Chengdu BOE is a subsidiary of BOE Beijing.

8. Upon information and belief, Chongqing BOE Optoelectronics Technology Co., Ltd. (“Chongqing BOE”) is a corporation organized and existing under the laws of the People’s Republic of China, having a principal place of business at No. 7, Yunhan RD, Shuitu Hi-tech Industrial Zone, Chongqing, P.R. China. Upon information and belief, Chongqing BOE is a subsidiary of BOE Beijing.

9. Upon information and belief, Wuhan BOE Optoelectronics Technology Co., Ltd. (“Wuhan BOE”) is a corporation organized and existing under the laws of the People’s Republic of China, having a principal place of business at No.691 Linkonggang RD, Dongxihu District, Wuhan, Hubei, 430040, P.R. China. Upon information and belief, Wuhan BOE is a subsidiary of BOE Beijing.

10. Upon information and belief, Yunnan Invensight Optoelectronics Technology Co., Ltd. (“BMOT”) is a corporation organized and existing under the laws of the People’s Republic of China, having a principal place of business at No. 215, Building A2, No.1 Yunshui RD, Da Ban Qiao sub-district office of Yunnan Dianzhong New Area, 650211, P.R. China. Upon information and belief, Yunnan Invensight Optoelectronics Technology Co., Ltd. was formerly known as “BMOT” and also as Kunming BOE Display Technology. Upon information and belief, BMOT is a subsidiary of BOE Beijing.

11. BOE Beijing, Mianyang BOE, Ordos BOE, Chengdu BOE, Chongqing BOE, Wuhan BOE, and BMOT are collectively referred to herein as “BOE” or “Defendants.”

12. Upon information and belief, Defendants make and sell OLED displays that infringe one or more claims of U.S. Patent No. 9,818,803 (“the ’803 Patent”), U.S. Patent No. 10,854,683

(“the ‘683 Patent”), U.S. Patent No. 11,594,578 (“the ‘578 Patent”), U.S. Patent No. 7,414,599 (“the ‘599 Patent”), and U.S. Patent No. 9,330,593 (“the ‘593 Patent”) (collectively, the “Asserted Patents”). Such OLED displays are hereinafter referred to as the “Accused Products.”

### **JURISDICTION AND VENUE**

13. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this is a civil action arising under the Patent Act.

14. This Court has personal jurisdiction over Defendants. Defendant BOE Beijing has established minimum contacts with the United States as a whole and with Virginia such that subjecting BOE Beijing to personal jurisdiction in this Court will not offend traditional notions of fair play and substantial justice. BOE Beijing has purposely availed itself of the laws and protections of the United States and Virginia by knowingly supplying and/or contracting to supply OLED displays for incorporation into products (such as smartphones) to be used, offered for sale, sold, and imported in the United States, Virginia, and in this District. BOE Beijing has targeted the United States by conducting regular business therein, and has placed and continues to place its products into the stream of commerce through an established distribution channel with the expectation and/or knowledge that they will be purchased by consumers in the United States, Virginia, and this District. Samsung Display’s claims for patent infringement arise directly from and/or relate to this activity. For example, a Nubia Z60 Ultra product that, on information and belief, contains an infringing OLED display supplied by Defendants was purchased in Virginia.

15. Defendant Mianyang BOE has established minimum contacts with the United States as a whole and with Virginia such that subjecting Mianyang BOE to personal jurisdiction in this Court will not offend traditional notions of fair play and substantial justice. Mianyang BOE has purposely availed itself of the laws and protections of the United States and Virginia by knowingly supplying and/or contracting to supply OLED displays for incorporation into products (such as

smartphones) to be used, offered for sale, sold, and imported in the United States, Virginia, and in this District. Mianyang BOE has targeted the United States by conducting regular business therein, and has placed and continues to place its products into the stream of commerce through an established distribution channel with the expectation and/or knowledge that they will be purchased by consumers in the United States, Virginia, and this District. For instance, Mianyang BOE has admitted in another recent proceeding that it supplies OLED displays that are imported into the United States. Further, a Nubia Z60 Ultra product that, on information and belief, contains an infringing OLED display supplied by Defendants was purchased in Virginia. Samsung Display's claims for patent infringement arise directly from and/or relate to this activity.

16. On information and belief, Defendant Ordos BOE, alone and/or through the activities of its parent BOE Beijing, has established minimum contacts with the United States as a whole and with Virginia such that subjecting Ordos BOE to personal jurisdiction in this Court will not offend traditional notions of fair play and substantial justice. Ordos BOE has purposely availed itself of the laws and protections of the United States and Virginia by knowingly supplying and/or contracting to supply OLED displays for incorporation into products (such as smartphones) to be used, offered for sale, sold, and imported in the United States, Virginia, and in this District. Ordos BOE has targeted the United States by conducting regular business therein, and has placed and continues to place its products into the stream of commerce through an established distribution channel with the expectation and/or knowledge that they will be purchased by consumers in the United States, Virginia, and this District. Further, a Nubia Z60 Ultra product that, on information and belief, contains an infringing OLED display supplied by Defendants was purchased in Virginia. Samsung Display's claims for patent infringement arise directly from and/or relate to this activity.

17. On information and belief, Defendant Chengdu BOE, alone and/or through the activities of its parent BOE Beijing, has established minimum contacts with the United States as a whole and with Virginia such that subjecting Chengdu BOE to personal jurisdiction in this Court will not offend traditional notions of fair play and substantial justice. Chengdu BOE has purposely availed itself of the laws and protections of the United States and Virginia by knowingly supplying and/or contracting to supply OLED displays for incorporation into products (such as smartphones) to be used, offered for sale, sold, and imported in the United States, Virginia, and in this District. Chengdu BOE has targeted the United States by conducting regular business therein, and has placed and continues to place its products into the stream of commerce through an established distribution channel with the expectation and/or knowledge that they will be purchased by consumers in the United States, Virginia, and this District. Further, a Nubia Z60 Ultra product that, on information and belief, contains an infringing OLED display supplied by Defendants was purchased in Virginia. Samsung Display's claims for patent infringement arise directly from and/or relate to this activity.

18. On information and belief, Defendant Chongqing BOE, alone and/or through the activities of its parent BOE Beijing, has established minimum contacts with the United States as a whole and with Virginia such that subjecting Chongqing BOE to personal jurisdiction in this Court will not offend traditional notions of fair play and substantial justice. Chongqing BOE has purposely availed itself of the laws and protections of the United States and Virginia by knowingly supplying and/or contracting to supply OLED displays for incorporation into products (such as smartphones) to be used, offered for sale, sold, and imported in the United States, Virginia, and in this District. Chongqing BOE has targeted the United States by conducting regular business therein, and has placed and continues to place its products into the stream of commerce through an established distribution channel with the expectation and/or knowledge that they will be purchased by consumers

in the United States, Virginia, and this District. Further, a Nubia Z60 Ultra product that, on information and belief, contains an infringing OLED display supplied by Defendants was purchased in Virginia. Samsung Display's claims for patent infringement arise directly from and/or relate to this activity.

19. On information and belief, Defendant Wuhan BOE, alone and/or through the activities of its parent BOE Beijing, has established minimum contacts with the United States as a whole and with Virginia such that subjecting Wuhan BOE to personal jurisdiction in this Court will not offend traditional notions of fair play and substantial justice. Wuhan BOE has purposely availed itself of the laws and protections of the United States and Virginia by knowingly supplying and/or contracting to supply OLED displays for incorporation into products (such as smartphones) to be used, offered for sale, sold, and imported in the United States, Virginia, and in this District. Wuhan BOE has targeted the United States by conducting regular business therein, and has placed and continues to place its products into the stream of commerce through an established distribution channel with the expectation and/or knowledge that they will be purchased by consumers in the United States, Virginia, and this District. Further, a Nubia Z60 Ultra product that, on information and belief, contains an infringing OLED display supplied by Defendants was purchased in Virginia. Samsung Display's claims for patent infringement arise directly from and/or relate to this activity.

20. On information and belief, Defendant BMOT, alone and/or through the activities of its parent BOE Beijing, has established minimum contacts with the United States as a whole and with Virginia such that subjecting BMOT to personal jurisdiction in this Court will not offend traditional notions of fair play and substantial justice. BMOT has purposely availed itself of the laws and protections of the United States and Virginia by knowingly supplying and/or contracting to supply OLED displays for incorporation into products (such as smartphones) to be used, offered for

sale, sold, and imported in the United States, Virginia, and in this District. BMOT has targeted the United States by conducting regular business therein, and has placed and continues to place its products into the stream of commerce through an established distribution channel with the expectation and/or knowledge that they will be purchased by consumers in the United States, Virginia, and this District. Further, a Nubia Z60 Ultra product that, on information and belief, contains an infringing OLED display supplied by Defendants was purchased in Virginia. Samsung Display's claims for patent infringement arise directly from and/or relate to this activity.

21. Venue is proper in this District under 28 U.S.C. § 1391 against Defendants BOE Beijing, Mianyang BOE, Ordos BOE, Chengdu BOE, Chongqing BOE, Wuhan BOE, and BMOT. BOE Beijing, Mianyang BOE, Ordos BOE, Chengdu BOE, Chongqing BOE, Wuhan BOE, and BMOT are foreign corporations that do not reside in the United States, and may be sued in any judicial district pursuant to 28 U.S.C. § 1391(c)(3).

22. Defendants are jointly and severally liable for infringing one or more claims of the Asserted Patents. Defendants' liability stems from the same transactions or occurrences regarding the use, offer for sale, and/or sale in the United States and/or the importation into the United States of the Accused Products. Consequently, this action involves questions of law and fact common to all Defendants.

#### **THE ASSERTED PATENTS**

23. U.S. Patent No. 9,818,803 ("the '803 Patent") is entitled "Pixel Arrangement Structure for Organic Light Emitting Display Device." The '803 Patent discloses, *inter alia*, novel pixel arrangement structures for an OLED display where the pixels are arranged according to novel patterns and layouts in which the pixels are formed in specified locations, formed to have differing surface areas, separated from each other by defined lengths, and/or formed to have particular shapes. A true and correct copy of the '803 Patent is attached as Exhibit 1.

24. Samsung Display is the sole owner by assignment of all right, title, and interest in the '803 Patent.

25. U.S. Patent No. 10,854,683 ("the '683 Patent") is entitled "Pixel Arrangement Structure for Organic Light Emitting Display Device." The '683 Patent discloses, *inter alia*, novel pixel arrangement structures for an OLED display where the pixels are arranged according to novel patterns and layouts in which the pixels are formed in specified locations, formed to have differing surface areas, separated from each other by defined lengths, and/or formed to have particular shapes. A true and correct copy of the '683 Patent is attached as Exhibit 2.

26. Samsung Display is the sole owner by assignment of all right, title, and interest in the '683 Patent.

27. U.S. Patent No. 11,594,578 ("the '578 Patent") is entitled "Pixel Arrangement Structure for Organic Light Emitting Display Device." The '578 Patent discloses, *inter alia*, novel pixel arrangement structures for an OLED display where the pixels are arranged according to novel patterns and layouts in which the pixels are formed in specified locations, formed to have differing surface areas, separated from each other by defined lengths, and/or formed to have particular shapes. A true and correct copy of the '578 Patent is attached as Exhibit 3.

28. Samsung Display is the sole owner by assignment of all right, title, and interest in the '578 Patent.

29. U.S. Patent No. 7,414,599 ("the '599 Patent") is entitled "Organic Light Emitting Device Pixel Circuit and Driving Method Thereof." The '599 Patent discloses, *inter alia*, a novel pixel circuit for realizing high gradation in an OLED device, thereby improving the device's image quality. A true and correct copy of the '599 Patent is attached as Exhibit 4.

30. Samsung Display is the sole owner by assignment of all right, title, and interest in the '599 Patent.

31. U.S. Patent No. 9,330,593 ("the '593 Patent") is entitled "Stage Circuit and Organic Light Emitting Display Using the Same." The '593 Patent discloses, *inter alia*, novel staging circuits for applying scanning signals to an OLED display. A true and correct copy of the '593 Patent is attached as Exhibit 5.

32. Samsung Display is the sole owner by assignment of all right, title, and interest in the '593 Patent.

33. On May 2, 2022, Samsung Display sent a letter to Defendant BOE Beijing notifying it that OLED displays being made and offered for sale by BOE were infringing Samsung Display's patents including the '803 Patent, the '683 Patent, the '599 Patent, and the '593 Patent. Upon information and belief, Defendants have therefore had knowledge of the '803 Patent, the '683 Patent, the '599 Patent, and the '593 Patent and of their infringement of those patents, at least since receiving the May 2, 2022 letter. In addition, upon information and belief, Defendants have had knowledge of the '578 Patent and of their infringement of the '578 Patent since at least the date of issuance of that patent. The '578 Patent issued from an application that was a continuation of the application that issued as the '683 Patent, which was identified in Samsung Display's May 2, 2022 letter to Defendant BOE Beijing as being infringed by OLED displays being made and offered for sale by BOE. Moreover, on information and belief, Defendants have had knowledge of the '578 Patent and of their infringement of that patent since at least March 10, 2023, when Samsung Display moved to amend its complaint in another proceeding where Mianyang BOE intervened as a respondent. *See In re Certain Active Matrix Organic Light-Emitting Diode Display Panels and Modules for Mobile Devices, and Components Thereof*, Investigation No. 337-TA-1351 (USITC) (the "-1351

Proceeding”). An initial determination in that proceeding, dated November 15, 2024, found infringement of valid claims of the ’803 Patent, the ’578 Patent, and the ’599 Patent by Mianyang BOE. Despite these infringement findings, BOE continues to commit acts of infringement. In addition, Defendants have had knowledge of the ’803 Patent, the ’683 Patent, the ’578 Patent, the ’599 Patent, and the ’593 Patent as a result of the filing of a complaint in the Eastern District of Texas, which alleged infringement of those patents by Defendants Beijing BOE and Mianyang BOE, in *Samsung Display Co. Ltd. v. BOE Technology Co., Ltd.*, No. 2:23-CV-00309-JRG-RSP (E.D. Tex. 2023). Moreover, Samsung Display marks the Asserted Patents on its website (<https://www.samsungdisplay.com/eng/patents.jsp>), and Defendants have had knowledge of the Asserted Patents through their copying of Samsung Display’s patented OLED technologies.

34. Pursuant to 35 U.S.C. § 315(e)(2), an *inter partes* review petitioner (and its real party in interest or privy) may not assert in a civil action (such as this) “that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that *inter partes* review.” On June 9, 2023, Defendant Mianyang BOE filed a petition for *inter partes* review seeking to challenge the patentability of certain claims of the ’599 Patent before the Patent Trial and Appeal Board. *See Mianyang BOE Optoelectronics Tech. Co., Ltd. et al. v. Samsung Display Co., Ltd.*, Case No. IPR2023-00941 (PTAB). On December 6, 2024, the Patent Trial and Appeal Board issued a Final Written Decision upholding the validity of all challenged claims of the ’599 Patent. Despite the patentability determination by the Patent Trial and Appeal Board, BOE continues to commit acts of infringement with respect to the ’599 Patent.

35. On June 21, 2023, Defendant Mianyang BOE filed a petition for *inter partes* review seeking to challenge the patentability of certain claims of the ’803 Patent before the Patent Trial and Appeal Board. *See Mianyang BOE Optoelectronics Tech. Co., Ltd. et al. v. Samsung Display Co.*,

*Ltd.*, Case No. IPR2023-00987 (PTAB). On January 6, 2025, the Patent Trial and Appeal Board issued a Final Written Decision upholding the validity of claim 5 of the '803 Patent. Despite the patentability determination by the Patent Trial and Appeal Board, BOE continues to commit acts of infringement with respect to at least claim 5 of the '803 Patent.

36. On June 21, 2023, Defendant Mianyang BOE filed a petition for *inter partes* review seeking to challenge the patentability of certain claims of the '683 Patent before the Patent Trial and Appeal Board. *See Mianyang BOE Optoelectronics Tech. Co., Ltd. et al. v. Samsung Display Co., Ltd.*, Case No. IPR2023-00988 (PTAB). On January 6, 2025, the Patent Trial and Appeal Board issued a Final Written Decision upholding the validity of claim 2 of the '683 Patent. Despite the patentability determination by the Patent Trial and Appeal Board, BOE continues to commit acts of infringement with respect to at least claim 2 of the '683 Patent.

37. On June 21, 2023, Defendant Mianyang BOE filed a petition for *inter partes* review seeking to challenge the patentability of certain claims of the '578 Patent before the Patent Trial and Appeal Board. *See Mianyang BOE Optoelectronics Tech. Co., Ltd. et al. v. Samsung Display Co., Ltd.*, Case No. IPR2023-01075 (PTAB). On January 6, 2025, the Patent Trial and Appeal Board issued a Final Written Decision upholding the validity of all challenged claims of the '578 Patent. Despite the patentability determination by the Patent Trial and Appeal Board, BOE continues to commit acts of infringement with respect to the '578 Patent.

### **THE ACCUSED PRODUCTS**

38. The Accused Products are OLED displays made, used, offered for sale, sold and/or imported by Defendants, including OLED displays incorporated into smartphones, tablets, and other mobile devices—such as the Nubia Z60 Ultra and REDMAGIC 9S Pro devices.

39. Upon information and belief, the Accused Products are manufactured and assembled by or for Defendants at facilities in China, including by Mianyang BOE. *See About Us,*

<https://www.bole.com/en/about/index> (last accessed May 27, 2025) (“BOE owns a number of manufacturing sites in Beijing, Hefei, Chengdu, Chongqing, Fuzhou, Mianyang, Wuhan, Kunming, Suzhou, Ordos, etc.”).

40. Upon information and belief, Defendants, directly or indirectly through affiliates, subsidiaries, agents or other representatives offer for sale and/or sell Accused Products in the United States, and/or import Accused Products into the United States, including in connection with supplying and selling Accused Products to U.S. businesses for product repair and as replacement parts and in connection with supplying and selling Accused Products to OEM customers for testing, evaluation, qualification, and incorporation into products, such as smartphones and tablets, that are used, offered for sale, and/or sold in the United States and/or imported into the United States.

41. BOE is identified on Nubia’s website as its OLED display supplier. *See* Nubia Z60 Ultra, Nubia Technology Co., Ltd., <https://www.nubia.com/en/products/smartphones/nubia/nubia-z60-ultra.html> (last accessed May 27, 2025) (“New BOE Q9+ Screen material Color display stability improved by 50%”); nubia Z70 Ultra - Nubia Store (Global), Nubia Technology Co., Ltd., <https://www.nubia.com/en/products/smartphones/nubia/nubia-z70-ultra.html> (last accessed May 27, 2025) (“Discover breathtaking visuals with the 6.85-inch AMOLED display, co-engineered with BOE for edge-to-edge clarity.”). BOE is also identified as Nubia’s supplier on the RedMagic website. *See* REDMAGIC 9S Pro Gaming Smartphone – Product Page - REDMAGIC (US and Canada), Nubia Technology Co., Ltd., <https://na.redmagic.gg/pages/redmagic-9-pro> (last accessed May 27, 2025) (“Enjoy deeper contrast, vivid colors, and a notch more brightness on the BOE Q9+ luminescent materials screen.”); REDMAGIC 10 Pro Gaming Smartphone - Full Specifications & Price - REDMAGIC (US and Canada), Nubia Technology Co., Ltd., <https://na.redmagic.gg/pages/redmagic-10-pro-specs> (last accessed May 27. 2025) (“Size: 6.853

Inch BOE Q9+ FHD+”). Market reports indicate that BOE supplies OLED displays to Nubia including at least for the Nubia Z70 Ultra and REDMAGIC 10 Pro models sold in the United States.

*See, e.g.,* BOE develops new under-the-OLED camera technology, to supply it to ZTE’s Nubia and Red Magic flagship smartphones (OLED-info), <https://www.oled-info.com/boe-develops-new-under-oled-camera-technology-supply-it-ztes-nubia-and-red> (last accessed May 27, 2025).

42. Upon information and belief, Defendants have also imported Accused Products into the United States, and used them in the United States, to promote them at industry and trade shows. For example, upon information and belief, BOE imported OLED devices into the United States for exhibition at The Society for Information Display’s (“SID”) DisplayWeek events in at least 2018, 2019, 2022, 2023, and 2024.

#### **COUNT I – INFRINGEMENT OF U.S. PATENT NO. 9,818,803**

43. Samsung Display hereby incorporates the allegations of Paragraphs 1 through 42 as if fully set forth herein.

44. Upon information and belief, BOE has infringed and continues to directly infringe the ’803 Patent by making, using, offering for sale, selling, and/or importing into the United States OLED displays for incorporation into the Accused Products, such as OLED displays incorporated into the Nubia Z60 Ultra product (“BOE OLED Display”).

45. Independent claim 1 of the ’803 Patent recites:

1. A pixel arrangement structure of an organic light emitting diode (OLED) display, comprising:

a plurality of pixels for displaying an image on the OLED display and comprising:

a first pixel having a center coinciding with a center of a virtual square;

a second pixel separated from the first pixel and having a center coinciding at a first vertex of the virtual square;

a second pixel separated from the first pixels and having a center at the first vertex;

another first pixel on a line defined by the center of the virtual square and the first vertex, the first pixel, the second pixel, and the other first pixel being consecutive pixels on the line from the plurality of pixels; and

a third pixel separated from the first pixels and the second pixel, and having a center at the second vertex neighboring the first vertex of the virtual square,

wherein the second pixel has a larger area than that of the third pixel, and;

wherein the first pixel is configured to emit green light.

46. Dependent claim 2 of the '803 Patent recites:

2. The pixel arrangement structure of claim 1,

wherein the plurality of pixels further comprises another second pixel separated from the first pixel and having a center at a third vertex neighboring the second vertex of the virtual square, and

wherein the second pixels are separated from each other by the first pixel.

47. Dependent claim 3 of the '803 Patent recites:

3. The pixel arrangement structure of claim 2,

wherein the plurality of pixels further comprises another third pixel separated from the first pixel and having a center at a fourth vertex neighboring the third vertex of the virtual square, and

wherein the third pixels are separated from each other by the first pixel.

48. Dependent claim 4 of the '803 Patent recites:

4. The pixel arrangement structure of claim 3, wherein the second pixels and the third pixels enclose the first pixel in the virtual square.

49. Dependent claim 5 of the '803 Patent recites:

5. The pixel arrangement structure of claim 4, wherein

the first pixel, the second pixels, and the third pixels have polygonal shapes, and

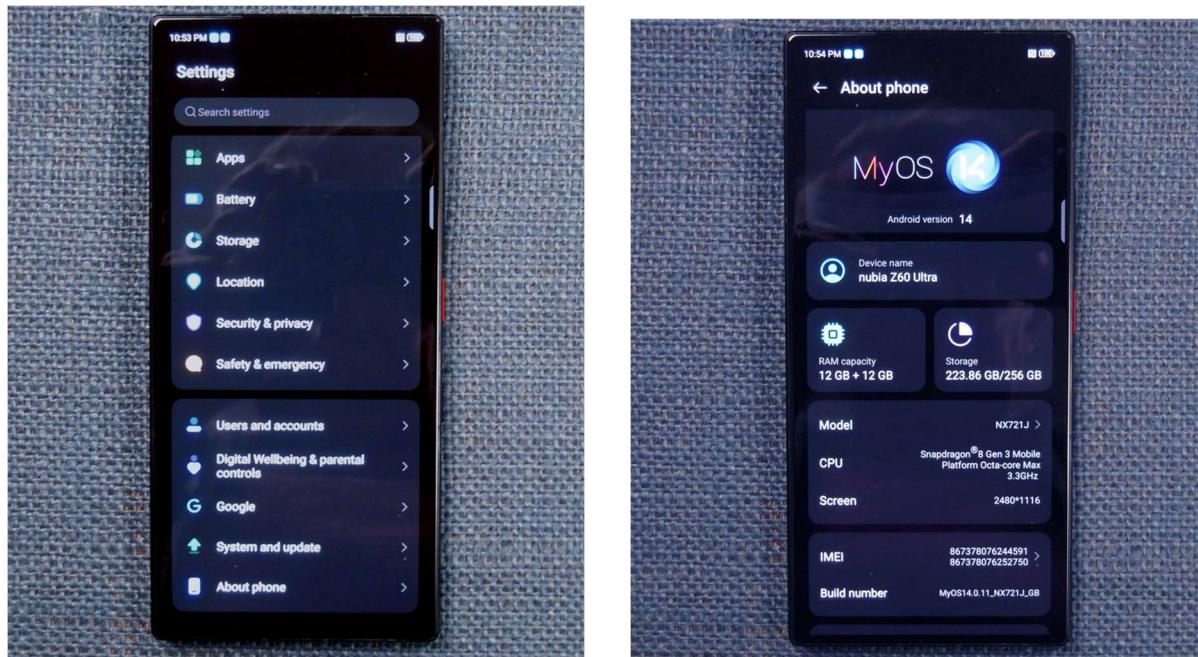
each of the second pixels and each of the third pixels has a larger area than the first pixel.

50. Upon information and belief, the BOE OLED Display meets each of the limitations in claim 5.

51. For example, the images below (Figures 1–3) are of a Nubia Z60 Ultra product that, on information and belief, contains an organic light emitting diode display supplied by BOE.



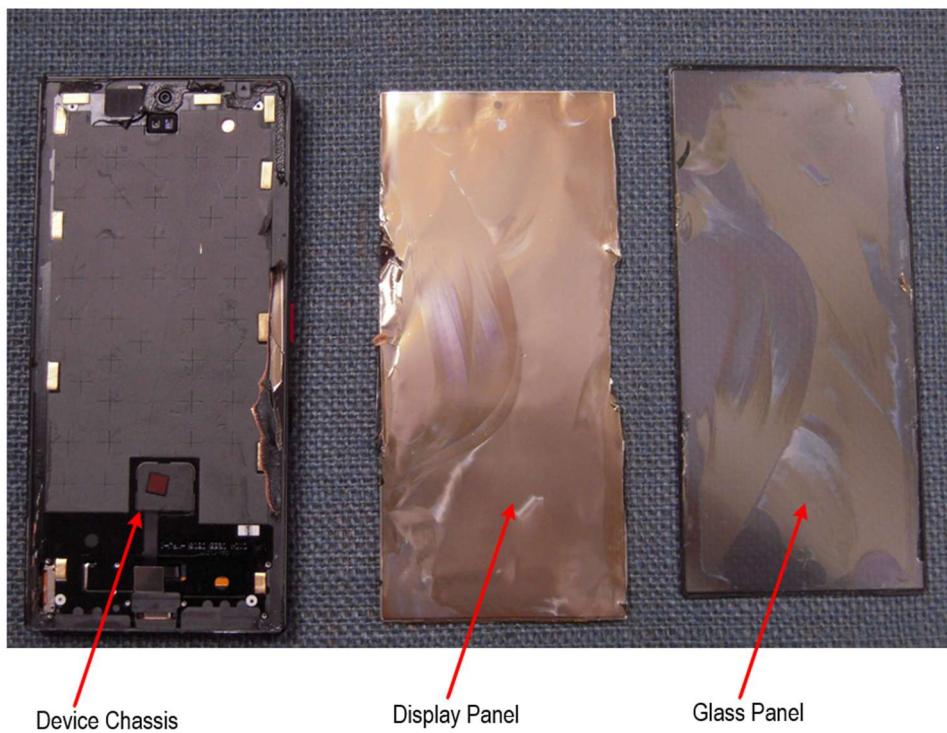
**Figure 1**



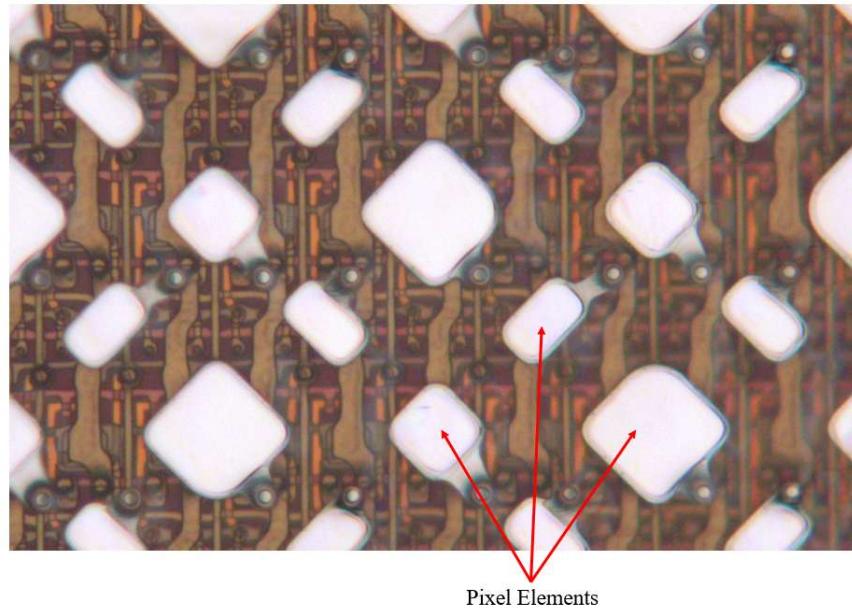
**Figure 2**

**Figure 3**

52. The BOE OLED Display is mounted within the device chassis and is located behind a glass panel, and in the image below (Fig. 4), the display panel can be seen.

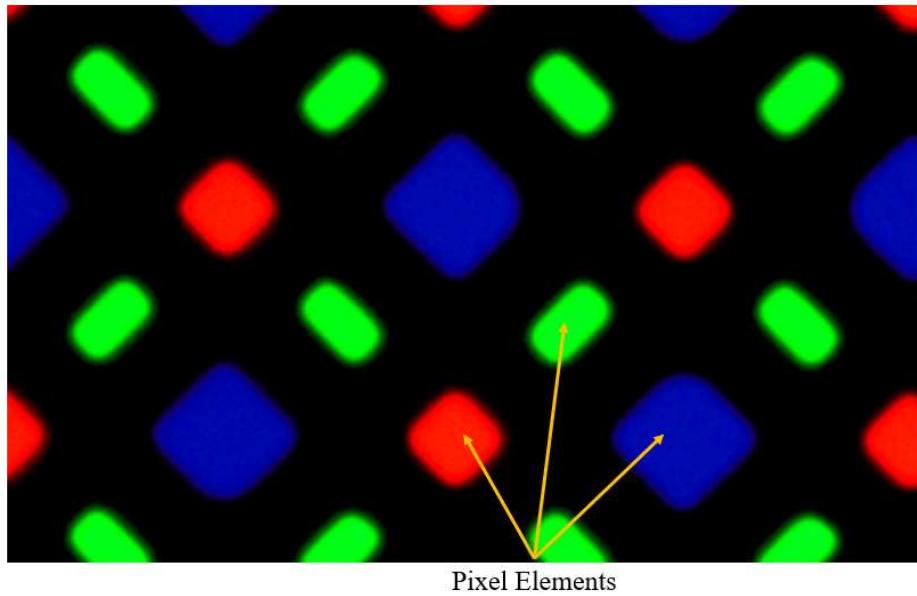
**Figure 4**

53. The BOE OLED Display is an “organic light emitting diode (OLED) display,” which comprises a pixel arrangement structure. In the annotated image below (Fig. 5), a plurality of pixel elements is arranged.



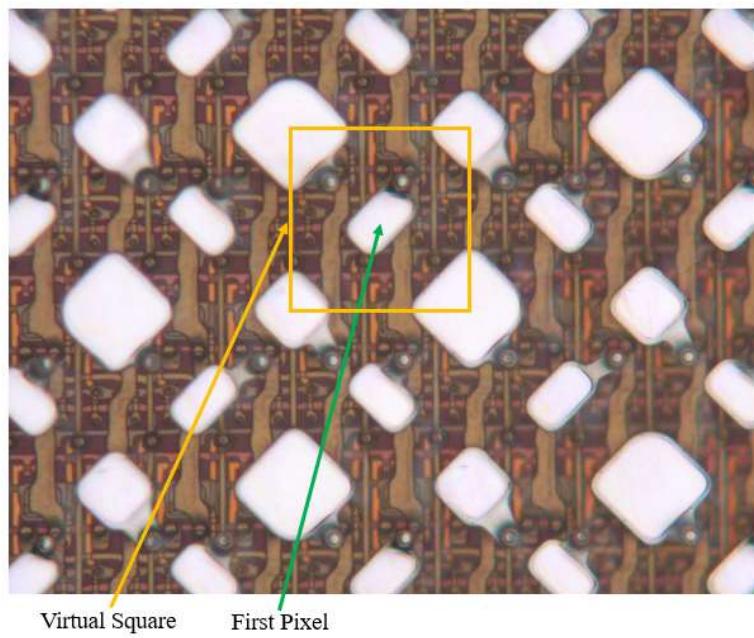
**Figure 5**

54. As shown in Figure 6, the “plurality of pixels” emits light “for displaying an image on the OLED display.”



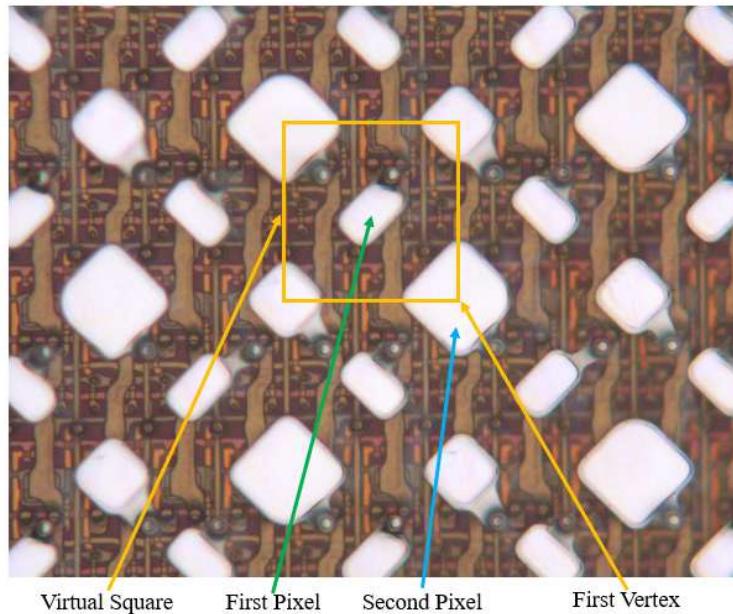
**Figure 6**

55. The BOE OLED Display comprises “a first pixel having a center coinciding with a center of a virtual square.” In the annotated image below (Fig. 7) (front-side image of the BOE OLED Display panel substrate), the first pixel and the virtual square are identified.



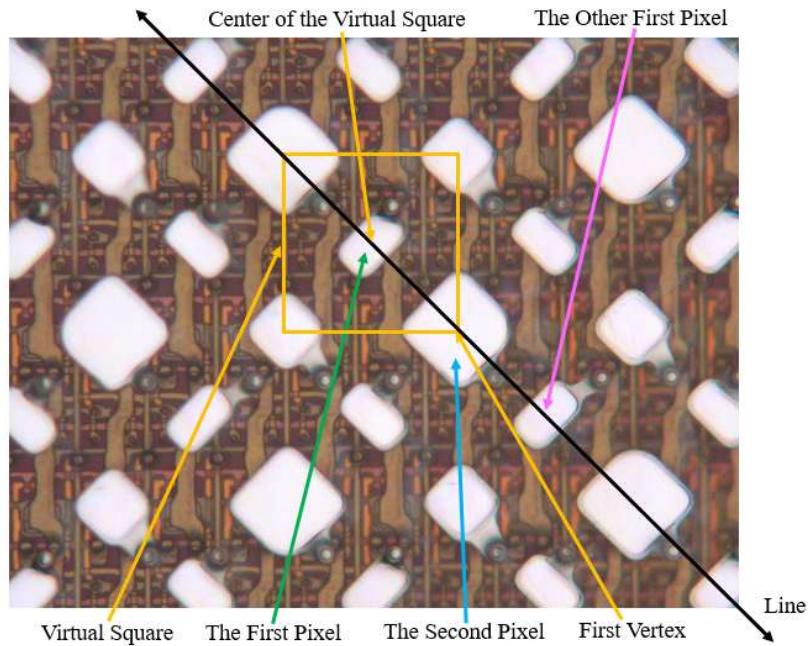
**Figure 7**

56. The BOE OLED Display comprises “a second pixel separated from the first pixel and having a center at a first vertex of the virtual square.” As shown in the annotated image below (Fig. 8), the BOE OLED Display has a second pixel (blue arrow) that is separated from the first pixel (green arrow) and is centered at a first vertex of the virtual square (orange).



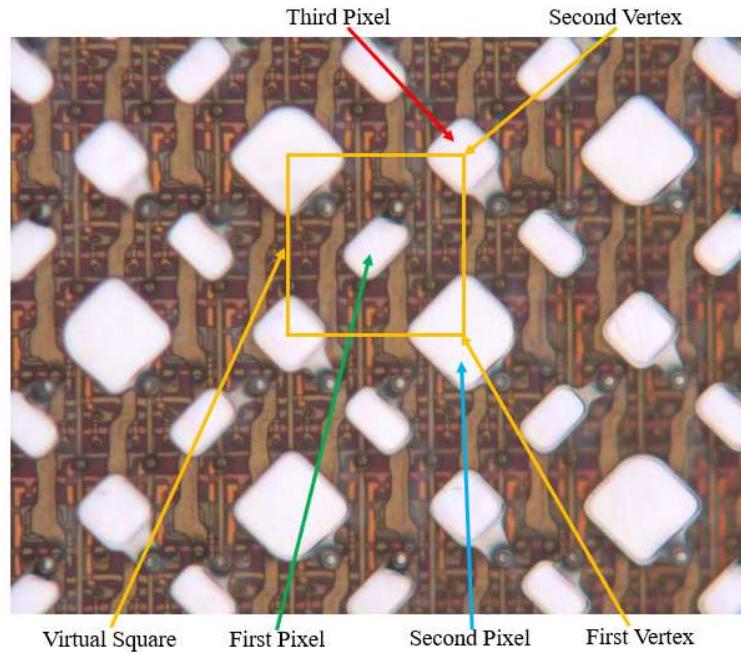
**Figure 8**

57. The BOE OLED Display comprises “another first pixel on a line defined by the center of the virtual square and the first vertex, the first pixel, the second pixel, and the other first pixel being consecutive pixels on the line from among the plurality of pixels.” As shown in the annotated image below (Fig. 9), the BOE OLED Display has another first pixel (pink arrow) on a line (black) defined by the center of the virtual square (orange) and the first vertex, with the first pixel (green arrow), the second pixel (blue arrow), and the other first pixel (pink arrow) being consecutive pixels on the line (black).



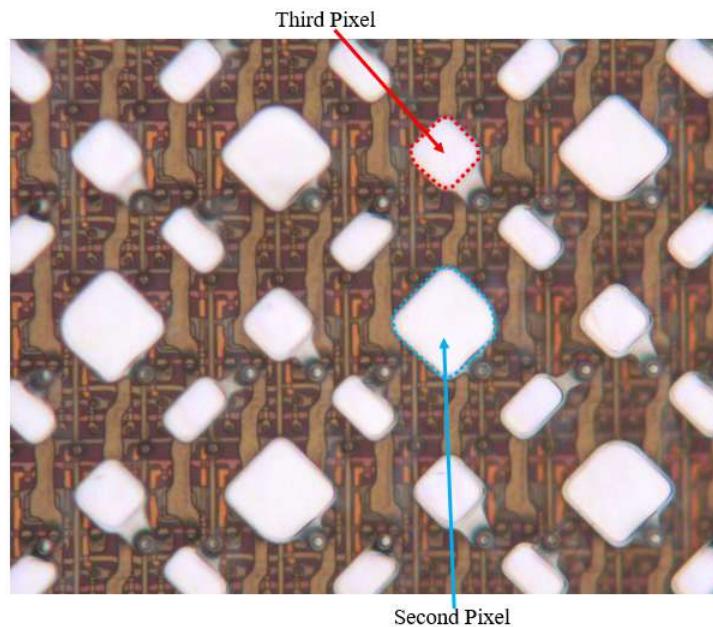
**Figure 9**

58. The BOE OLED Display comprises “a third pixel separated from the first pixels and the second pixel, and having a center at a second vertex neighboring the first vertex of the virtual square.” As shown in the annotated image below (Fig. 10), the BOE OLED Display has a third pixel (red arrow) that is separated from the first pixel (green arrow) and the second pixel (blue arrow) and is centered at a second vertex neighboring the first vertex of the virtual square (orange).



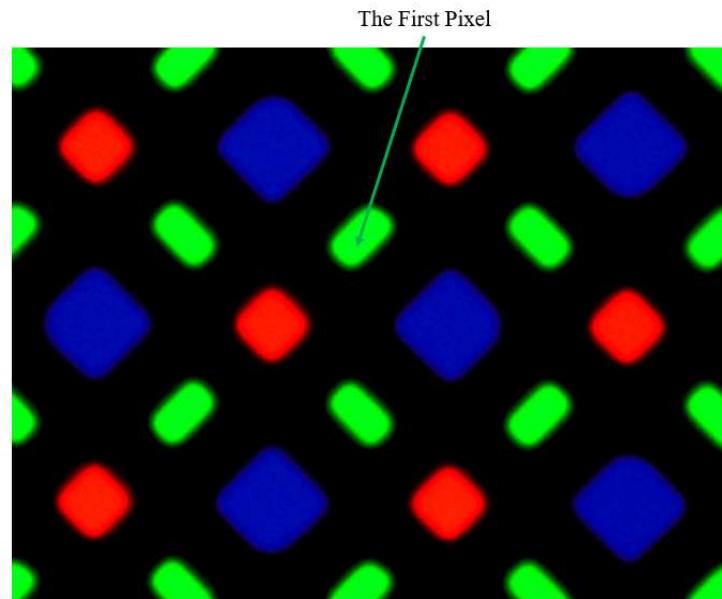
**Figure 10**

59. In the BOE OLED Display, “the second pixel has a larger area than that of the third pixel.” As shown in the annotated image below (Fig. 11), the second pixel’s area (dotted blue line) is larger than the area of the third pixel (dotted red line).



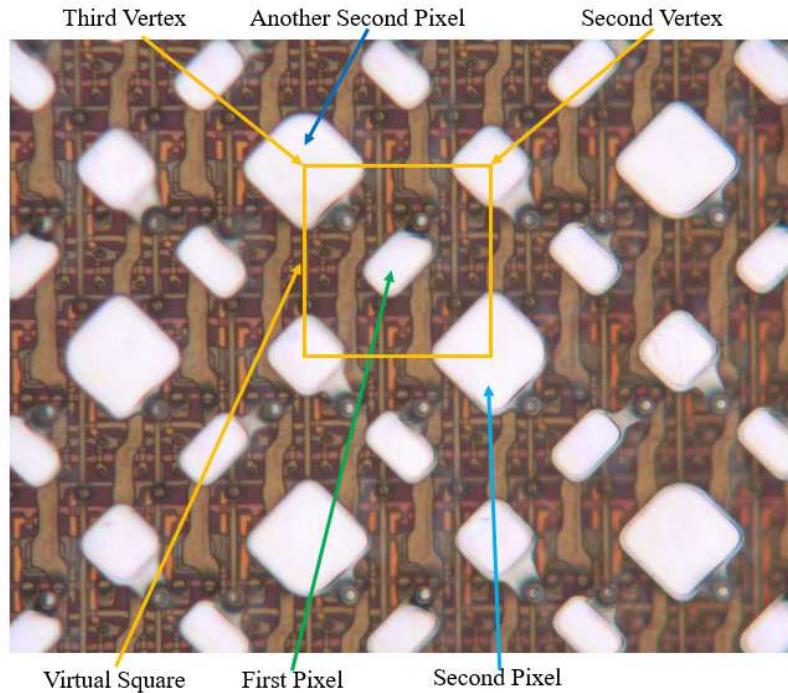
**Figure 11**

60. In the BOE OLED Display, “the first pixel is configured to emit green light.” As shown in the annotated image below (Fig. 12), the first pixel (green arrow) emits green light.



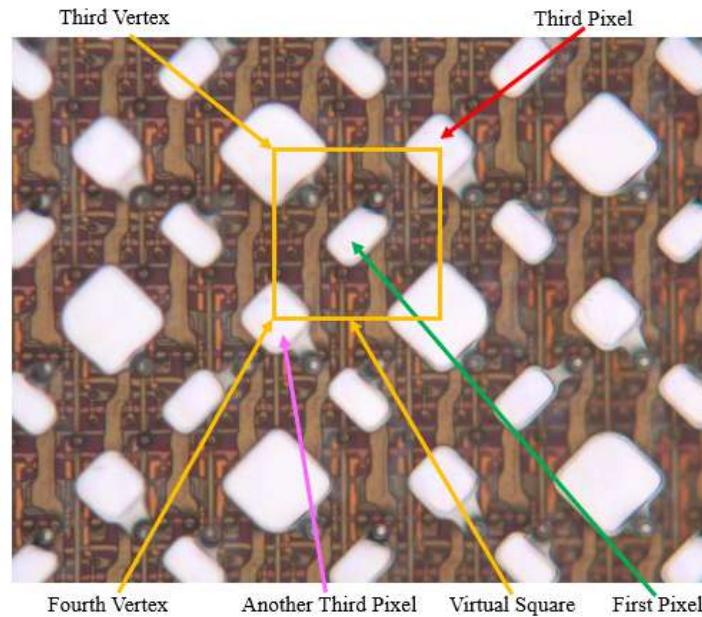
**Figure 12**

61. In the BOE OLED Display, “the plurality of pixels further comprises another second pixel separated from the first pixel and having a center at a third vertex neighboring the second vertex of the virtual square, and wherein the second pixels are separated from each other by the first pixel.” As shown in the annotated image below (Fig. 13), the BOE OLED Display has another second pixel (dark blue arrow) separated from the first pixel (green arrow) and having a center at a third vertex neighboring the second vertex of the virtual square (orange), and wherein the second pixels (dark blue arrow and light blue arrow) are separated from each other by the first pixel (green arrow).

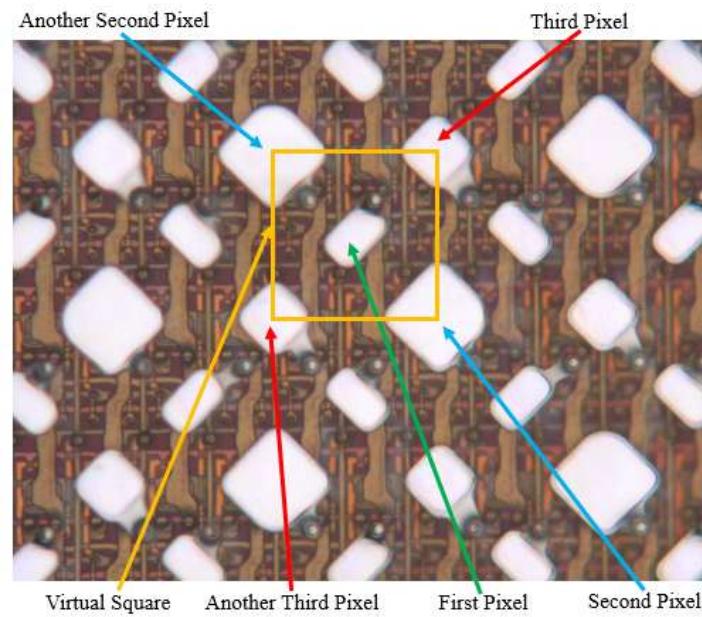


**Figure 13**

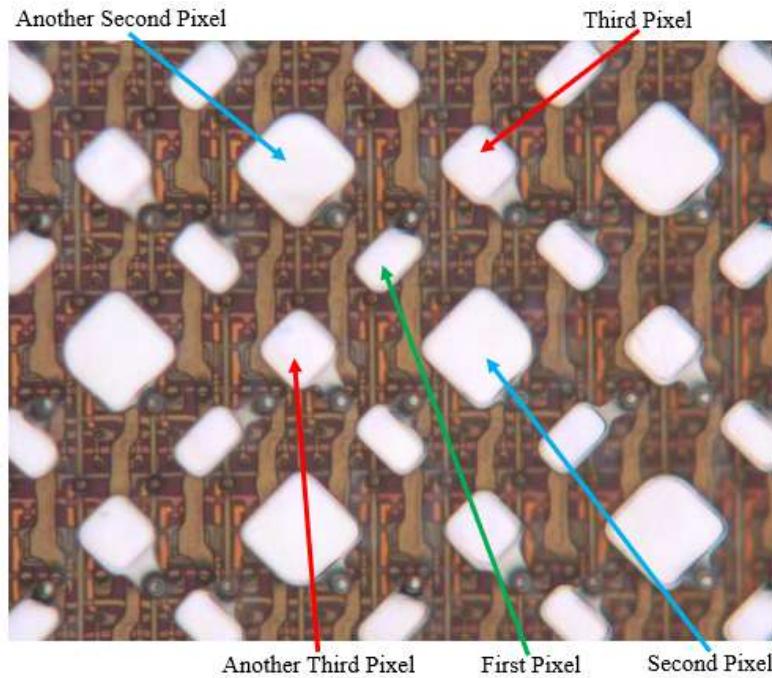
62. In the BOE OLED Display, “the plurality of pixels further comprises another third pixel separated from the first pixel and having a center at a fourth vertex neighboring the third vertex of the virtual square, and wherein the third pixels are separated from each other by the first pixel.” As shown in the annotated image below (Fig. 14), the BOE OLED Display has another third pixel (pink arrow) separated from the first pixel (green arrow) and having a center at a fourth vertex neighboring the third vertex of the virtual square (orange), and wherein the third pixels (red arrow and pink arrow) are separated from each other by the first pixel (green arrow).

**Figure 14**

63. In the BOE OLED Display, “the second pixels and the third pixels enclose the first pixel in the virtual square.” As shown in the annotated image below (Fig. 15), the second pixels (blue arrows) and the third pixels (red arrows) enclose the first pixel (green arrow) in the virtual square (orange).

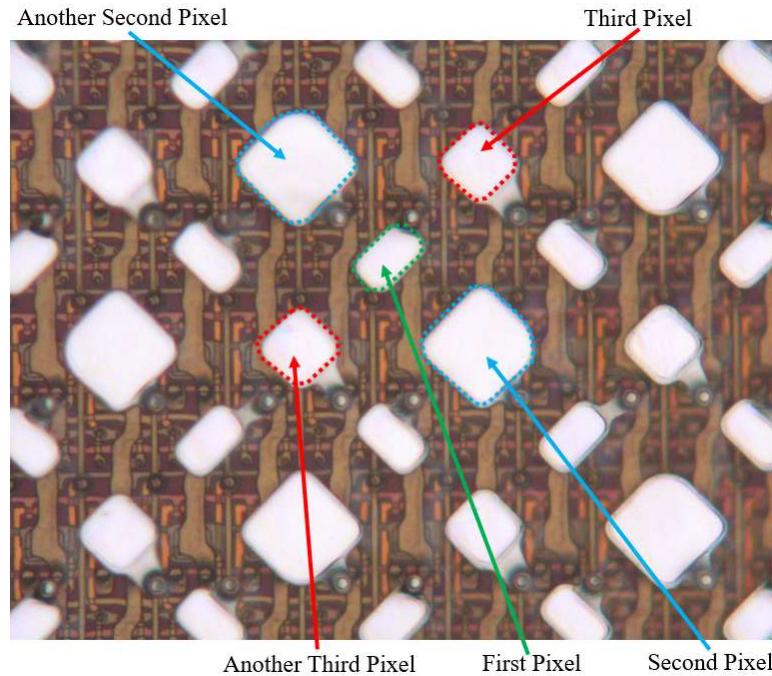
**Figure 15**

64. In the BOE OLED Display, “the first pixel, the second pixels, and the third pixels have polygonal shapes.” As shown in the annotated image below (Fig. 16), the first pixel (see green arrow), the second pixels (see blue arrows), and the third pixels (see red arrows) each have polygonal shapes.



**Figure 16**

65. In the BOE OLED Display, “each of the second pixels and each of the third pixels has a larger area than the first pixel.” As shown in the annotated image below (Fig. 17), each of the second pixels’ areas (dotted blue lines) and each of the third pixels’ areas (dotted red lines) are larger than the first pixel’s area (dotted green line).

**Figure 17**

66. Upon information and belief, and as shown above in the example of the BOE OLED Display used in the Nubia Z60 Ultra product, the Accused Products meet every limitation of at least claim 5 of the '803 Patent.

67. By making, using, offering for sale, selling, and/or importing into the United States the Accused Products, including the OLED displays used in Nubia Z60 Ultra products, BOE directly infringes at least claim 5 of the '803 Patent.

68. Upon information and belief, BOE has induced infringement of the '803 Patent under 35 U.S.C. § 271(b) by knowingly and intentionally inducing others to directly infringe the '803 Patent. Despite having notice of the '803 Patent—including through at least its receipt of Samsung Display's May 2, 2022 notice letter specifically informing BOE of its infringing activity—and the initial determination in the -1351 Proceeding finding infringement of the '803 Patent, BOE has actively encouraged others to infringe the patent. For example, upon information and belief, BOE has knowingly and intentionally induced third-party manufacturers, shippers, distributors, and/or

retailers to directly infringe (literally and/or under the doctrine of equivalents) the '803 Patent by using, offering to sell, and/or selling in the United States, and/or importing into the United States, products containing infringing BOE OLED displays. BOE's OLED displays are especially designed to contain features that infringe the '803 Patent and the Accused Products have no substantial uses other than ones that infringe the '803 Patent.

69. Moreover, upon information and belief, BOE takes active steps, directly and/or through contractual relationships with others, with the specific intent to cause such persons to use, offer to sell, sell, and/or import products containing BOE OLED displays that infringe at least claim 5 of the '803 Patent. Upon information and belief, such steps by BOE include, among other things, making or selling the Accused Products, including BOE OLED displays for at least the Nubia Z60 Ultra products, for importation into or sale in the United States, knowing that such importation or sale would occur. Indeed, Mianyang BOE has admitted in the -1351 Proceeding that it manufactures and sells AMOLED screens that are imported into the United States. Upon information and belief, Mianyang BOE was thus aware that its infringing OLED displays would be imported into the US (and that use of the infringing OLED displays would infringe), yet it sold those displays to those customers anyway. Upon information and belief, BOE has engaged in these activities with knowledge of the '803 Patent and knowledge that the induced acts constitute infringement. BOE's inducement of infringement of the '803 Patent is ongoing.

70. Upon information and belief, BOE has also contributorily infringed the '803 Patent under 35 U.S.C. § 271(c) through its supply of BOE OLED displays to customers that incorporate those OLED displays into other products, including at least the Nubia Z60 Ultra product. The BOE OLED displays have no substantial non-infringing uses and are especially designed and made for use in devices that infringe the '803 Patent. BOE has engaged in these activities despite having notice

of the '803 Patent, and the OLED displays that BOE has sold and/or provided to customers embody a material part of the claimed invention of at least claim 5 of the '803 Patent. BOE's contributory infringement of the '803 Patent is ongoing.

71. Upon information and belief, BOE's infringement has been, and continues to be, willful. For example, upon information and belief, BOE has been on notice of the '803 Patent and its infringement of the '803 Patent since at least its receipt of Samsung Display's May 2, 2022 notice letter specifically informing BOE of its infringing activity. Furthermore, the initial determination in the -1351 Proceeding found infringement of at least claim 5 of the '803 Patent by Mianyang BOE. Yet, BOE has continued its infringing activities.

#### **COUNT II – INFRINGEMENT OF U.S. PATENT NO. 10,854,683**

72. Samsung Display hereby incorporates the allegations of Paragraphs 1 through 71 as if fully set forth herein.

73. Upon information and belief, Defendants have infringed and continue to directly infringe the '683 Patent by making, using, offering for sale, selling, and/or importing into the United States OLED displays for incorporation into the Accused Products, such as OLED displays incorporated into the Nubia Z60 Ultra product.

74. Independent claim 1 of the '683 Patent recites:

1. A pixel arrangement structure of an organic light emitting diode (OLED) display comprising:

a plurality of pixels for displaying an image on the OLED display and comprising:

a first pixel;

a pair of second pixels separated from the first pixel, the second pixels being located at opposite sides of the first pixel along a first line on which the first pixel, the second pixels, and another first pixel are consecutively arranged such that the first line passes through respective centers of the first pixel, the second pixels, and the other first pixel; and

a pair of third pixels separated from the first pixel and the second pixels, the third pixels being located at opposite sides of the first pixel along a second line on which the first pixel, the third pixels, and an additional first pixel are consecutively arranged such that the second line passes through respective centers of the first pixel, the third pixels, and the additional first pixel, the second line crossing the first line at a location of the first pixel,

wherein a first distance between the second pixels is greater than a second distance between one of the second pixels and a neighboring one of the third pixels,

wherein the first pixels are configured to emit green light, which is a color that is different from light emitted by the second pixels and the third pixels,

wherein the first pixels are smaller than at least one of the second pixels or the third pixels, and

wherein each of the second pixels has a larger area than each of the third pixels.

75. Dependent claim 2 of the '683 Patent recites:

2. The pixel arrangement structure of claim 1, wherein the first pixels, the second pixels, and the third pixels have polygonal shapes, and wherein each of the second pixels and the third pixels has a larger area than the first pixel.

76. Upon information and belief, the BOE OLED Display meets each of the limitations of claim 2.

77. For example, the images below (Figures 18–20) are of a Nubia Z60 Ultra product that, on information and belief, contains an organic light emitting diode display supplied by BOE.



Figure 18

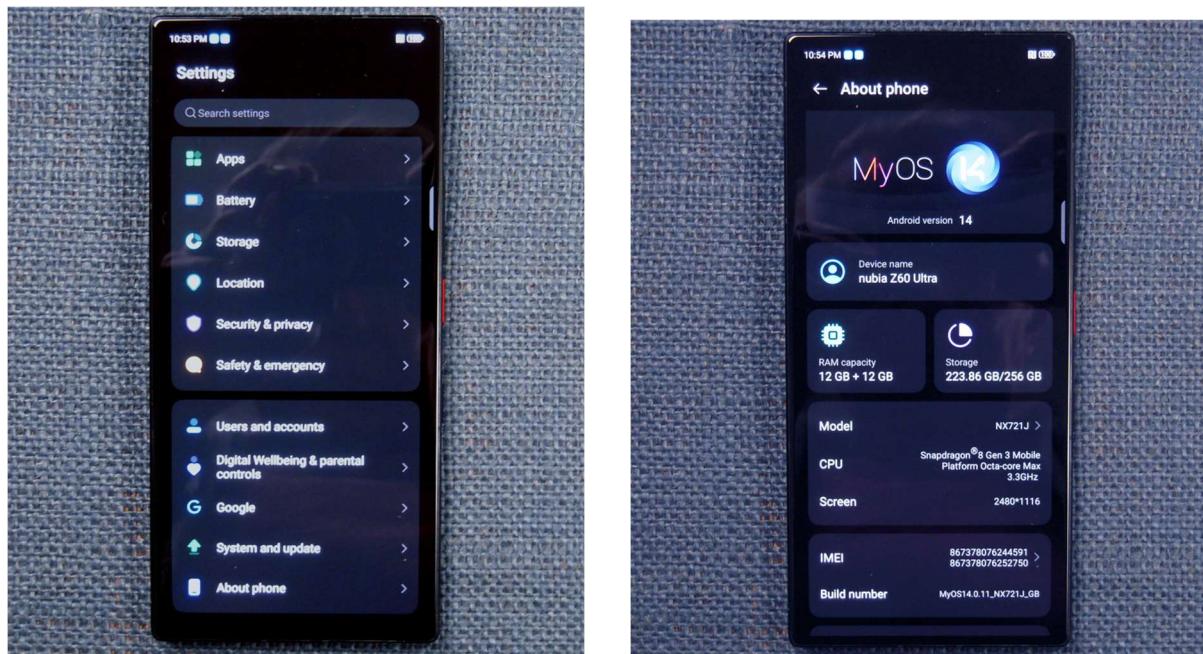
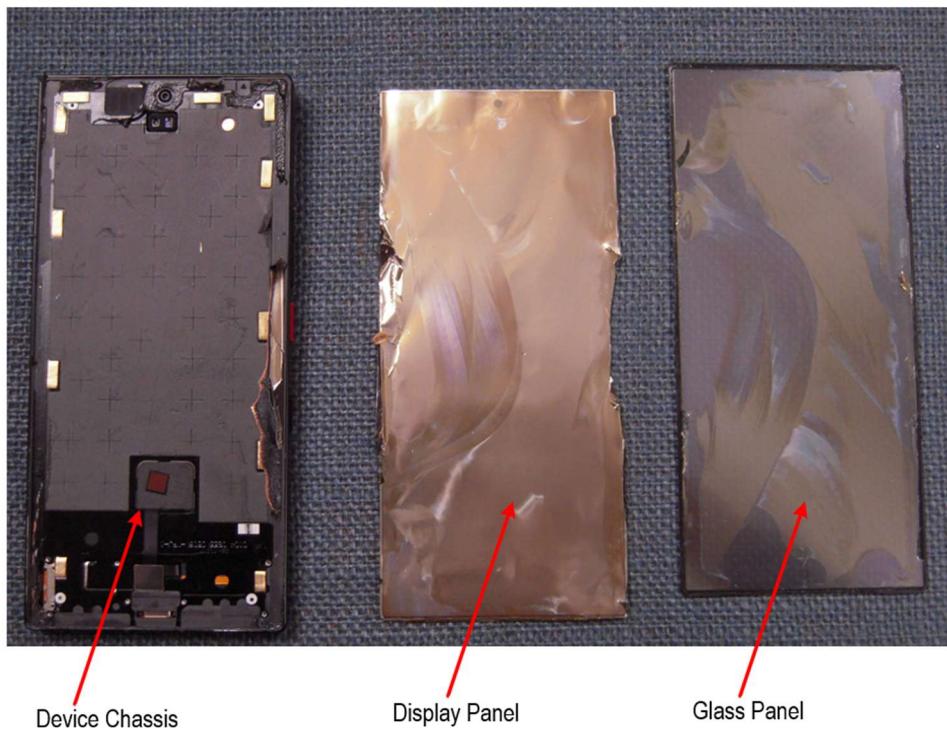


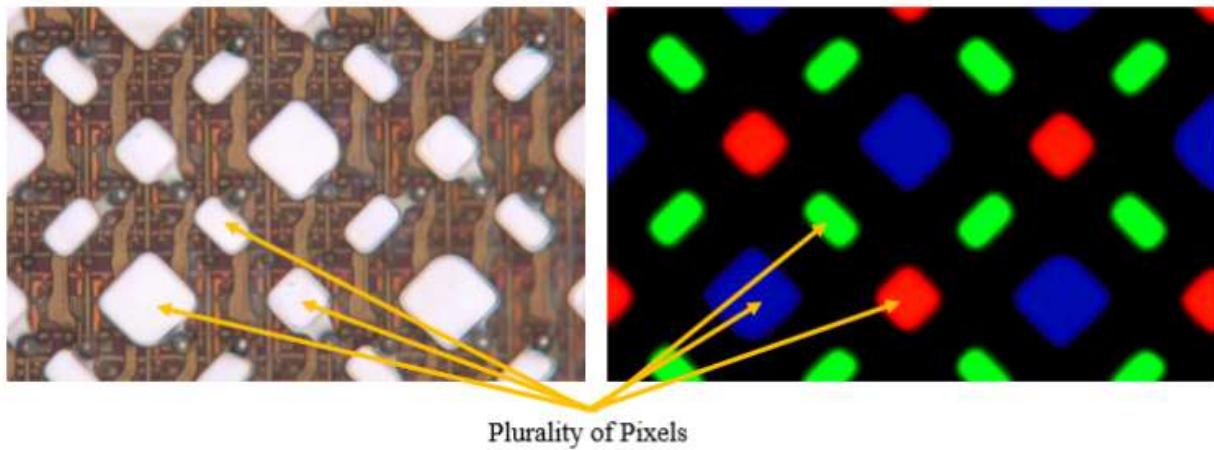
Figure 19

**Figure 20**

78. The BOE OLED Display is mounted within the device chassis and is located behind a glass panel, and in the image below (Fig. 21), the display panel can be seen.

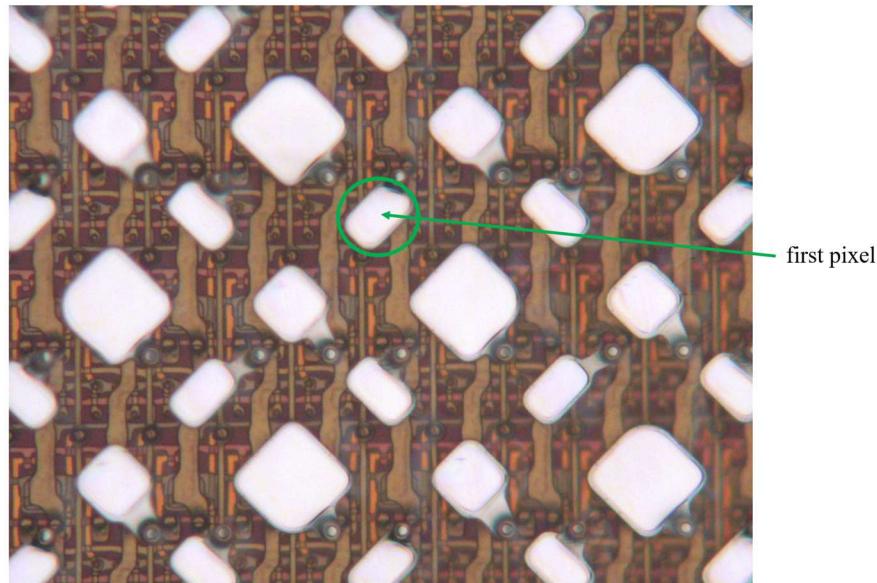
**Figure 21**

79. As shown in the image below (Fig. 22), the BOE OLED Display contains a “pixel arrangement structure of an organic light emitting diode (OLED) display,” where the pixel arrangement structure comprises “a plurality of pixels for displaying an image on the OLED display.”



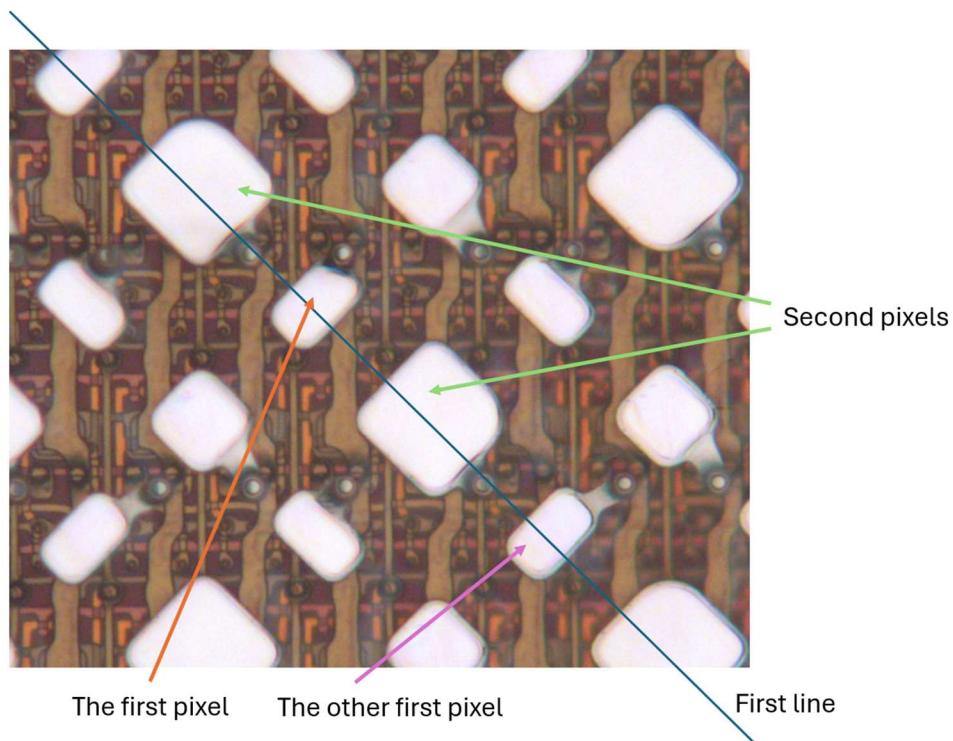
**Figure 22**

80. As shown in Figure 23 below, the BOE OLED Display comprises a “first pixel.”



**Figure 23**

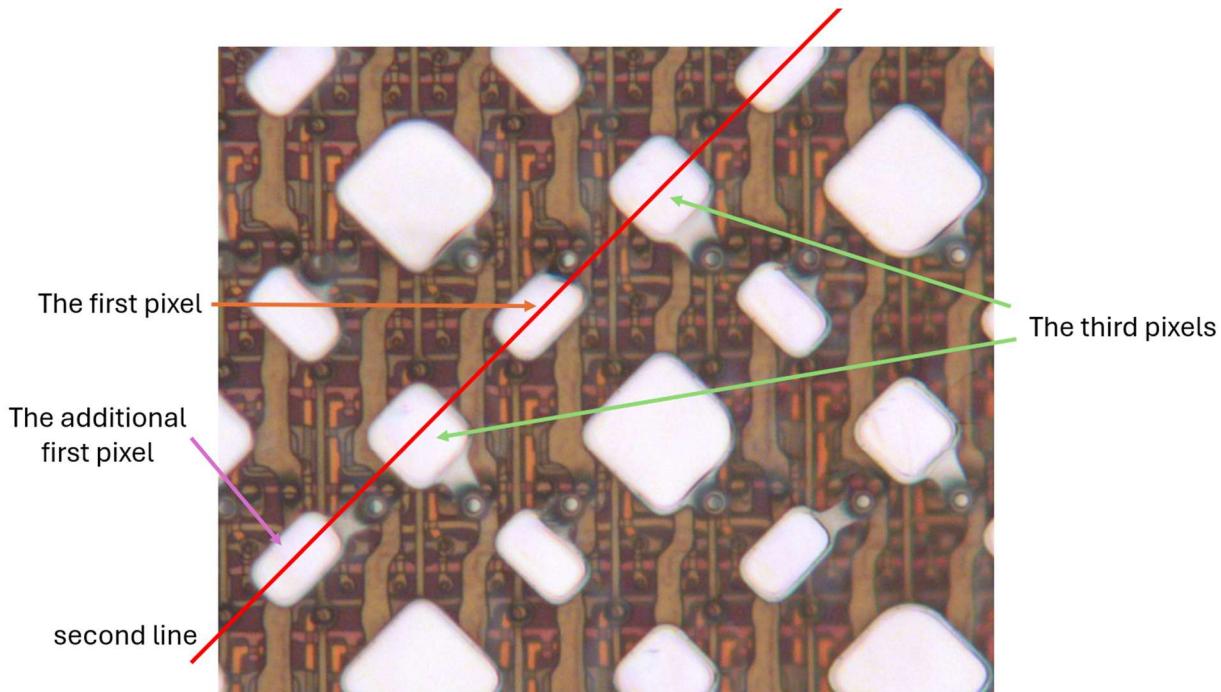
81. As shown in Figure 24 below, the BOE OLED Display comprises “a pair of second pixels separated from the first pixel, the second pixels being located at opposite sides of the first pixel along a first line on which the first pixel, the second pixels, and another first pixel are consecutively arranged such that the first line passes through respective centers of the first pixel, the second pixels, and the other first pixel.” The BOE OLED Display has a pair of second pixels (green arrows) that are separated from and on opposite sides of the first pixel (orange arrow) along a first line (dark blue) passing through the centers of the first pixel (orange arrow), the second pixels (green arrows), and another first pixel (purple arrow) consecutively arranged on the first line (dark blue).



**Figure 24**

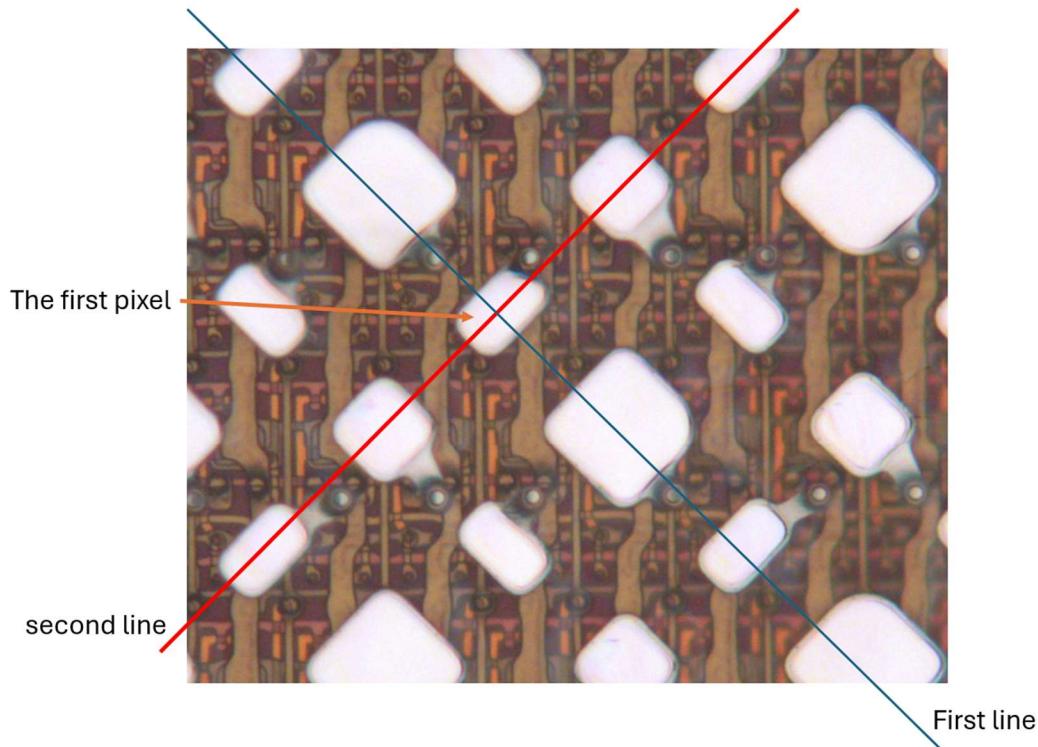
82. As shown in Figure 25 below, the BOE OLED Display comprises “a pair of third pixels separated from the first pixel and the second pixels, the third pixels being located at opposite sides of the first pixel along a second line on which the first pixel, the third pixels, and an additional first pixel are consecutively arranged such that the second line passes through respective centers of

the first pixel, the third pixels, and the additional first pixel.” As shown in the annotated image below (Fig. 25), the BOE OLED Display has a pair of third pixels (green arrows) that are separated from and on opposite sides of the first pixel (orange arrow) along a second line (red) passing through the centers of the first pixel (orange arrow), the third pixels (green arrows), and an additional first pixel (purple arrow) consecutively arranged on the second line (red).



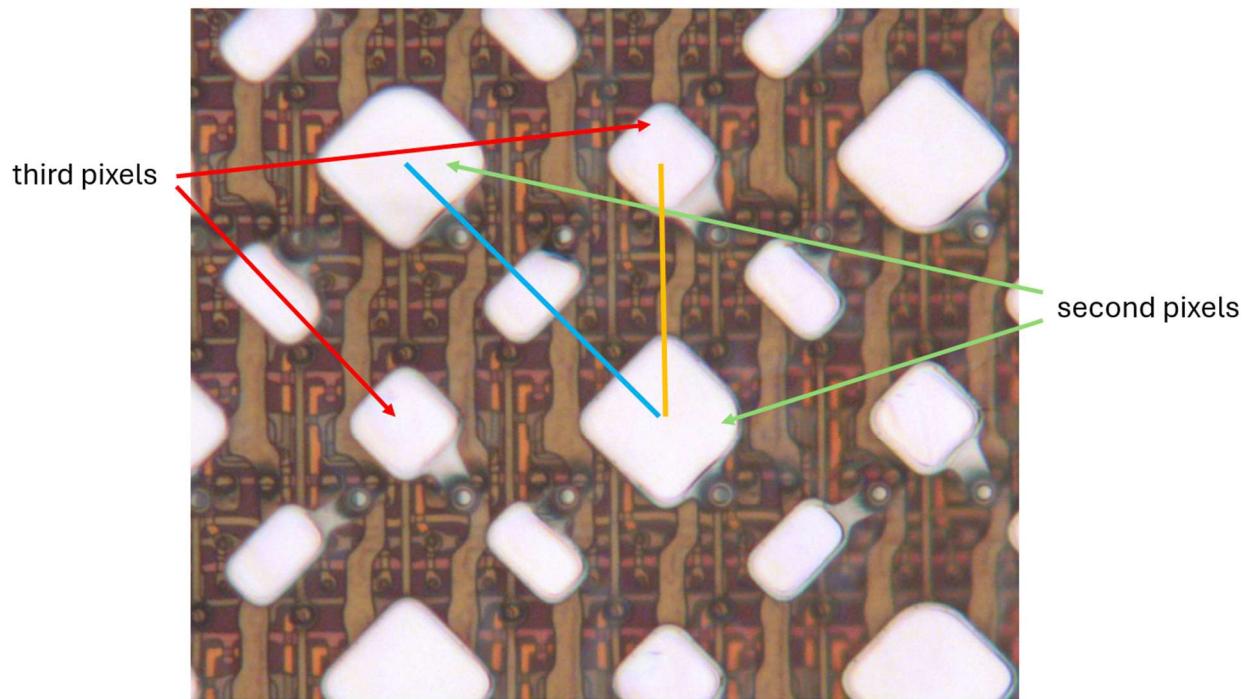
**Figure 25**

83. In the BOE OLED Display, the second line is “crossing the first line at a location of the first pixel.” As shown in the annotated image below (Fig. 26), the second line (red) crosses the first line (dark blue) at a location of the first pixel (orange arrow).



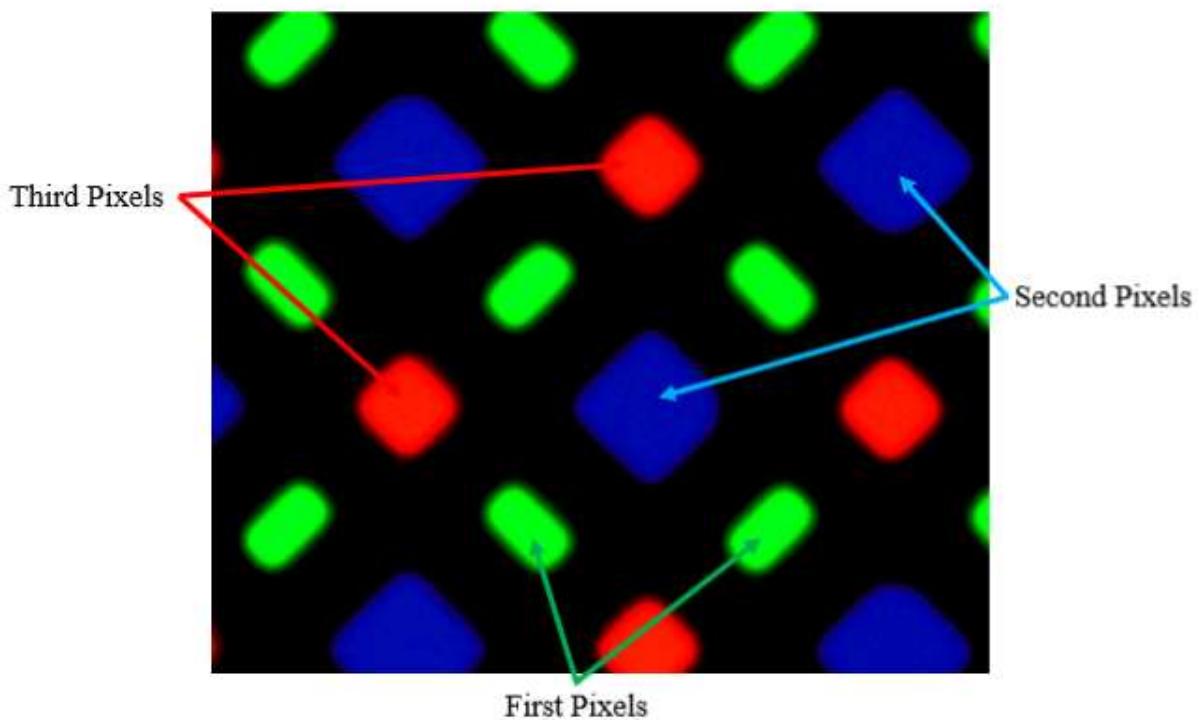
**Figure 26**

84. In the BOE OLED Display, “a first distance between the second pixels is greater than a second distance between one of the second pixels and a neighboring one of the third pixels.” As shown in the annotated image below (Fig. 27), a first distance (blue line) between the second pixels (green arrows) is greater than a second distance (yellow) between one of the second pixels (green arrows) and a neighboring one of the third pixels (red arrows).



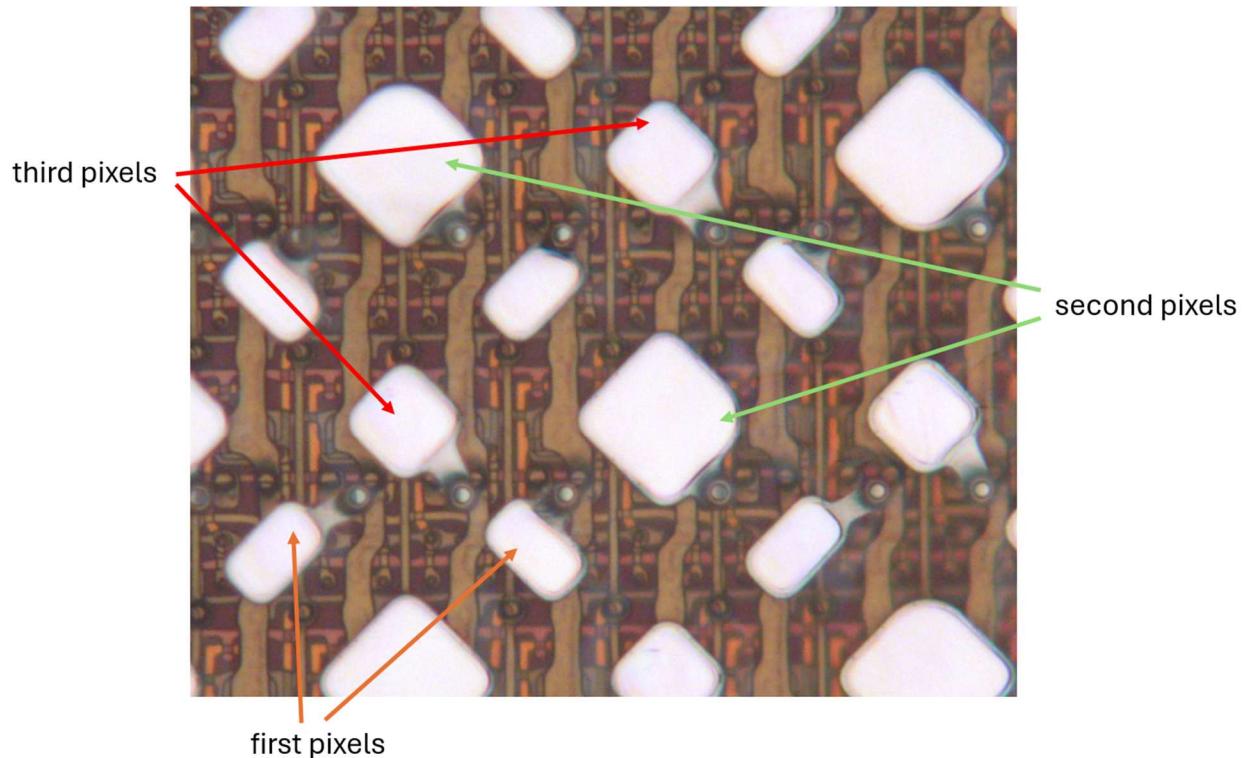
**Figure 27**

85. In the BOE OLED Display, “the first pixels are configured to emit green light, which is a color that is different from light emitted by the second pixels and the third pixels.” As shown in the annotated image below (Fig. 28), the first pixels (green arrows) emit green light, which is a color that is different from the blue light emitted by the second pixels (blue arrows) and the red light emitted by the third pixels (red arrows).



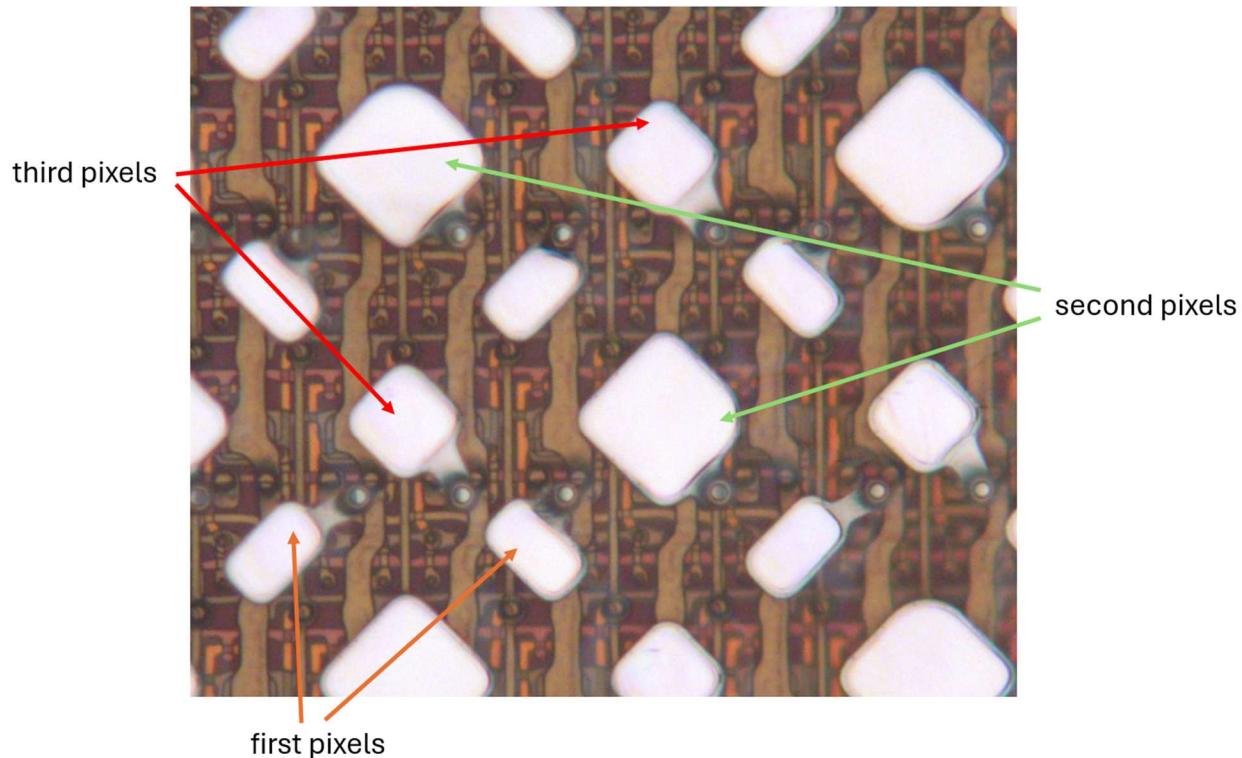
**Figure 28**

86. In the BOE OLED Display, “the first pixels are smaller than at least one of the second pixels or the third pixels.” As shown in the annotated image below (Fig. 29), the first pixels (orange arrows) are smaller than at least one of the second pixels (green arrows) or the third pixels (red arrows).



**Figure 29**

87. In the BOE OLED Display, “each of the second pixels has a larger area than each of the third pixels.” As shown in the annotated image below (Fig. 30), the area of each second pixel (green arrows) is larger than the area of each third pixel (red arrows).



**Figure 30**

88. In the BOE OLED Display, “the first pixels, the second pixels, and the third pixels have polygonal shapes” and “each of the second pixels and the third pixels has a larger area than the first pixel.” As shown in the annotated image above (Fig. 30), the area of each second pixel (green arrows) and the area of each third pixel (red arrows) is larger than the area of each first pixel (orange arrows). The first pixels (orange arrows), the second pixels (green arrows), and the third pixels (red arrows) have polygonal shapes.

89. Upon information and belief, and as shown above in the example of the BOE OLED Display used in the Nubia Z60 Ultra product, the Accused Products meet every limitation of at least claim 2 of the '683 Patent.

90. By making, using, offering for sale, selling, and/or importing into the United States the Accused Products, including the OLED displays used in Nubia Z60 Ultra products, BOE directly infringes at least claim 2 of the '683 Patent.

91. Upon information and belief, BOE has induced infringement of the '683 Patent under 35 U.S.C. § 271(b) by knowingly and intentionally inducing others to directly infringe the '683 Patent. Despite having notice of the '683 Patent—including through at least its receipt of Samsung Display's May 2, 2022 notice letter specifically informing BOE of its infringing activity—BOE has actively encouraged others to infringe the patent. For example, upon information and belief, BOE has knowingly and intentionally induced third-party manufacturers, shippers, distributors, and/or retailers to directly infringe (literally and/or under the doctrine of equivalents) the '683 Patent by using, offering to sell, and/or selling in the United States, and/or importing into the United States, products containing infringing BOE OLED displays. BOE's OLED displays are especially designed to contain features that infringe the '683 Patent, and the Accused Products have no substantial uses other than ones that infringe the '683 Patent.

92. Moreover, upon information and belief, BOE takes active steps, directly and/or through contractual relationships with others, with the specific intent to cause such persons to use, offer to sell, sell, and/or import products containing BOE OLED displays that infringe at least claim 2 of the '683 Patent. Upon information and belief, such steps by BOE include, among other things, making or selling the Accused Products, including BOE OLED displays for at least the Nubia Z60 Ultra products, for importation into or sale in the United States, knowing that such importation or sale would occur. Indeed, Mianyang BOE has admitted in the -1351 Proceeding that it manufactures and sells AMOLED screens that are imported into the United States. Upon information and belief, Mianyang BOE was thus aware that its infringing OLED displays would be imported into the US

(and that use of the infringing OLED displays would infringe), yet it sold those displays to those customers anyway. Upon information and belief, BOE has engaged in these activities with knowledge of the '683 Patent and knowledge that the induced acts constitute infringement. BOE's inducement of infringement of the '683 Patent is ongoing.

93. Upon information and belief, BOE has also contributorily infringed the '683 Patent under 35 U.S.C. § 271(c) through its supply of BOE OLED displays to customers that incorporate those OLED displays into other products, including at least the Nubia Z60 Ultra product. The BOE OLED displays have no substantial non-infringing uses and are especially designed and made for use in devices that infringe the '683 Patent. BOE has engaged in these activities despite having notice of the '683 Patent, and the OLED displays that BOE has sold and/or provided to customers embody a material part of the claimed invention of at least claim 2 of the '683 Patent. BOE's contributory infringement of the '683 Patent is ongoing.

94. Upon information and belief, BOE's infringement has been, and continues to be, willful. For example, upon information and belief, BOE has been on notice of the '683 Patent and its infringement of the '683 Patent since at least its receipt of Samsung Display's May 2, 2022 notice letter specifically informing BOE of its infringing activity. Yet, BOE has continued its infringing activities.

### **COUNT III – INFRINGEMENT OF U.S. PATENT NO. 11,594,578**

95. Samsung Display hereby incorporates the allegations of Paragraphs 1 through 94 as if fully set forth herein.

96. Upon information and belief, Defendants have infringed and continue to directly infringe the '578 Patent by making, using, offering for sale, selling, and/or importing into the United States OLED displays for incorporation into the Accused Products, such as OLED displays incorporated into the Nubia Z60 Ultra product.

97. Independent claim 1 of the '578 Patent recites:

1. A pixel arrangement structure of an organic light emitting diode (OLED) display, the pixel arrangement structure comprising a plurality of pixels comprising:

a plurality of first pixels;

a plurality of second pixels; and

a plurality of third pixels;

wherein the OLED display comprises a pixel defining layer defining areas of the first pixels, the second pixels, and the third pixels;

wherein the first pixels, the second pixels, and the third pixels are configured to emit different color lights;

wherein the first pixels are arranged in first sets extending along a first direction to form respective first lines;

wherein the second pixels and the third pixels are alternately arranged in second sets extending along the first direction to form respective second lines parallel to the first lines;

wherein one of the second lines passes through centers of the second pixels and the third pixels in a corresponding one of the second sets and passes between the first pixels in corresponding adjacent ones of the first sets;

wherein the first lines and the second lines are alternately arranged;

wherein the first pixels are also arranged in third sets extending along a second direction that is perpendicular to the first direction to form respective third lines;

wherein the second pixels and the third pixels are also alternately arranged in fourth sets extending along the second direction to form respective fourth lines that are parallel to the third lines;

wherein the third lines and the fourth lines are alternately arranged;

wherein the first pixels and either the second pixels or the third pixels are alternately arranged along a third direction, which crosses the first direction and the second direction;

wherein a region having a width in the second direction that is equal to a width of the first pixels in the second direction, extending parallel to the first direction, and completely overlapping a row of the first pixels extending in the first direction, is entirely offset in the second direction from at least one of the second pixels or the

third pixels in at least one of rows of the second pixels and the third pixels adjacent to the row of the first pixels; and

wherein a shortest distance between two nearest ones of the first pixels in one of the first sets is greater than a shortest distance between one of the second pixels and one of the third pixels that are nearest each other in one of the second sets.

98. Upon information and belief, the BOE OLED Display meets each of the limitations of claim 1.

99. For example, the images below (Figures 31–33) are of a Nubia Z60 Ultra Product that, on information and belief, contains an organic light emitting diode display supplied by BOE.



**Figure 31**

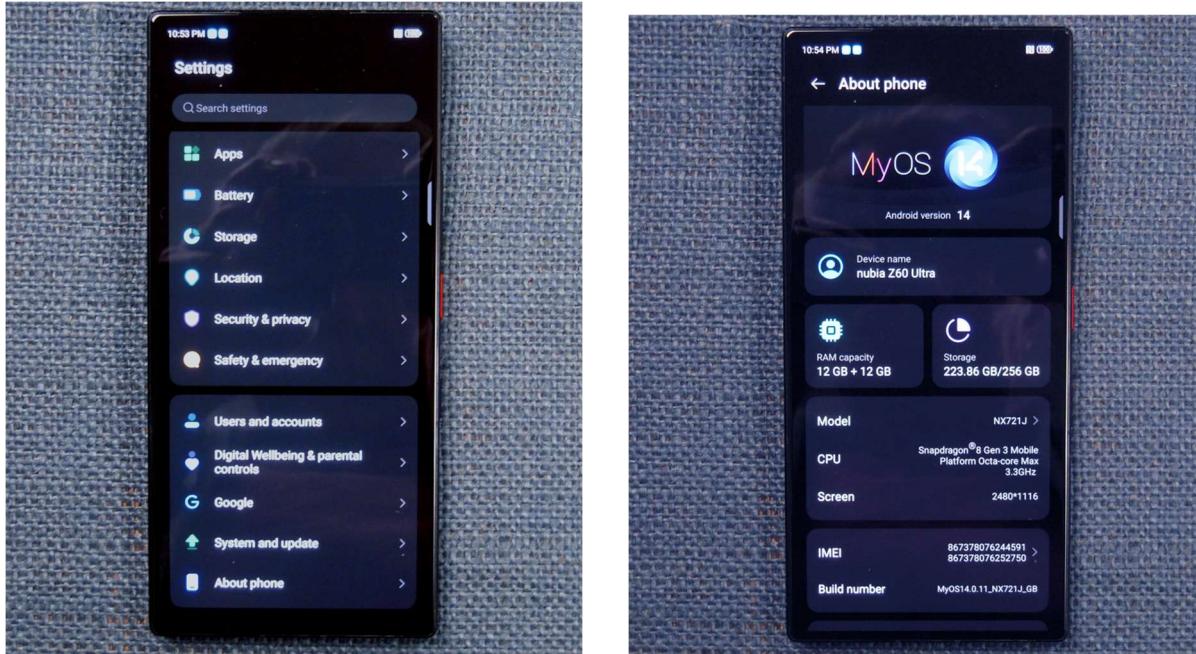
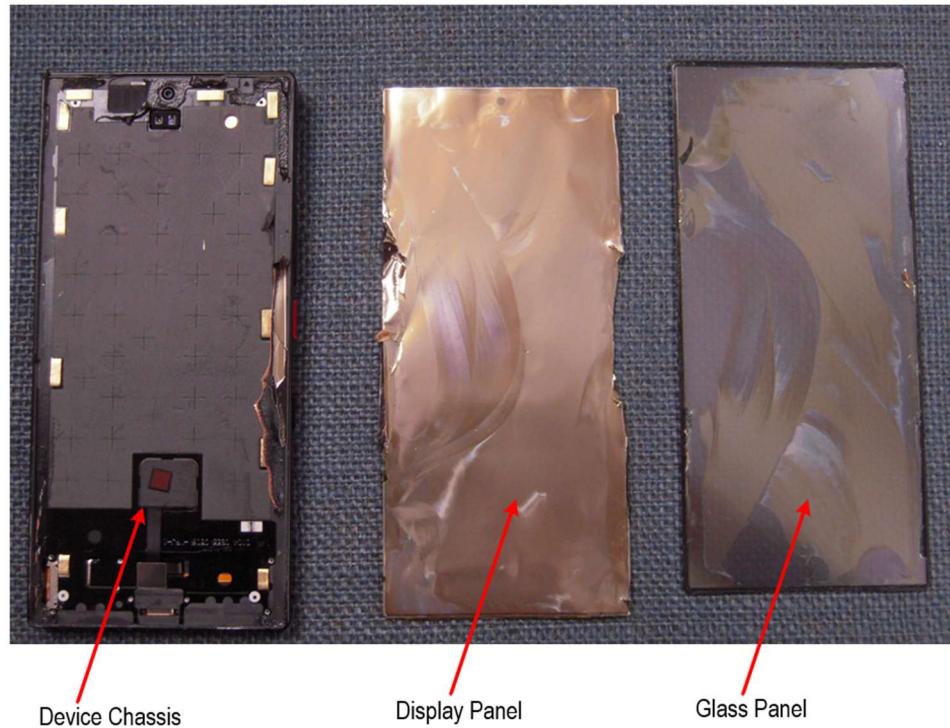


Figure 32



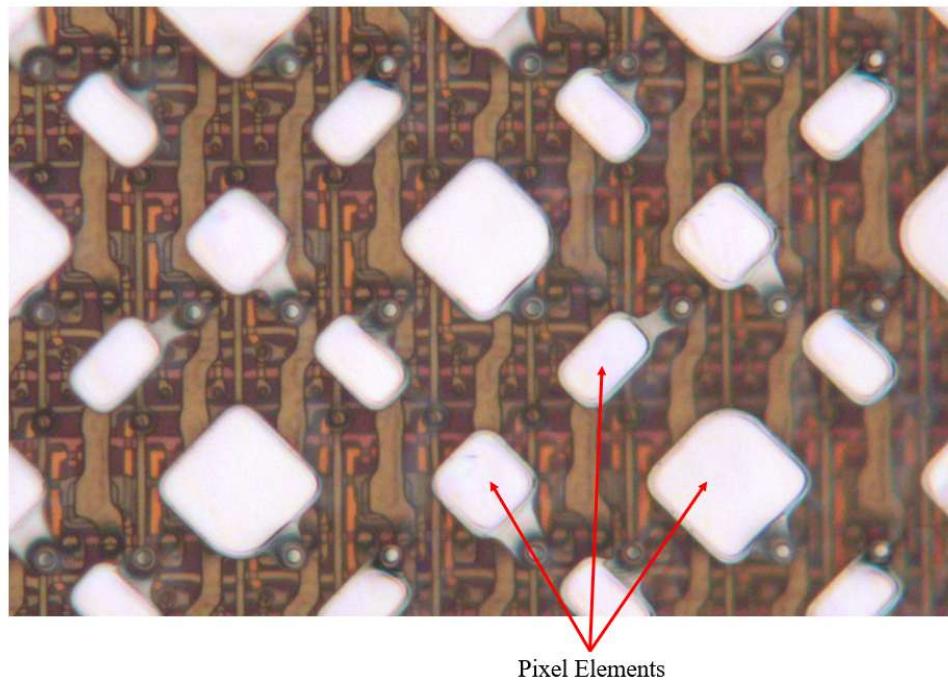
Figure 33

100. The BOE OLED Display is mounted within the device chassis and is located behind a glass panel, and in the image below (Fig. 34), the display panel can be seen.



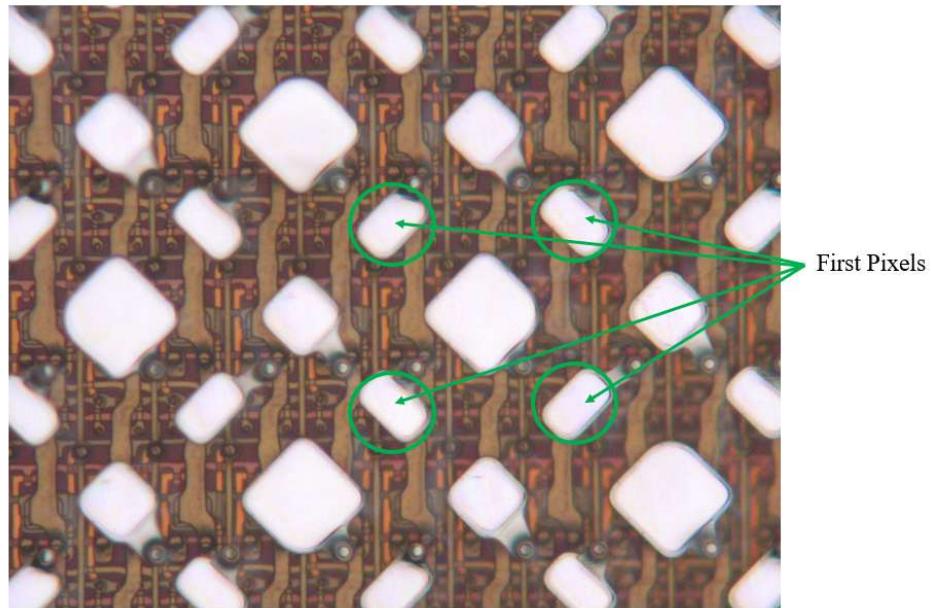
**Figure 34**

101. As shown in the image below (Fig. 35), the BOE OLED Display contains a “pixel arrangement structure of an organic light emitting diode (OLED) display, the pixel arrangement structure comprising a plurality of pixels.”



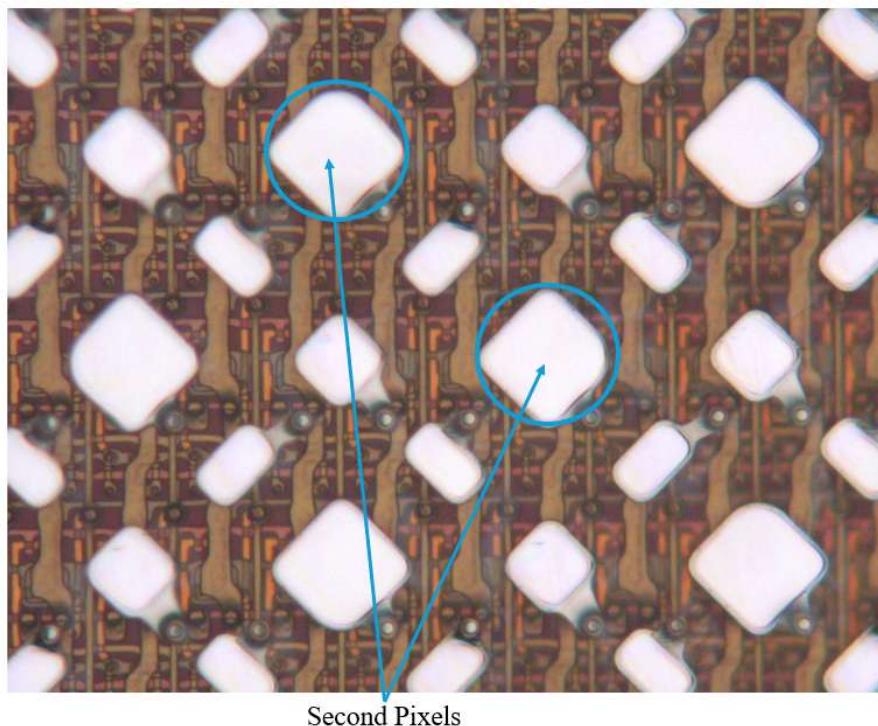
**Figure 35**

102. As shown in the image below (Fig. 36), the BOE OLED Display comprises a pixel arrangement structure comprising “a plurality of first pixels.”



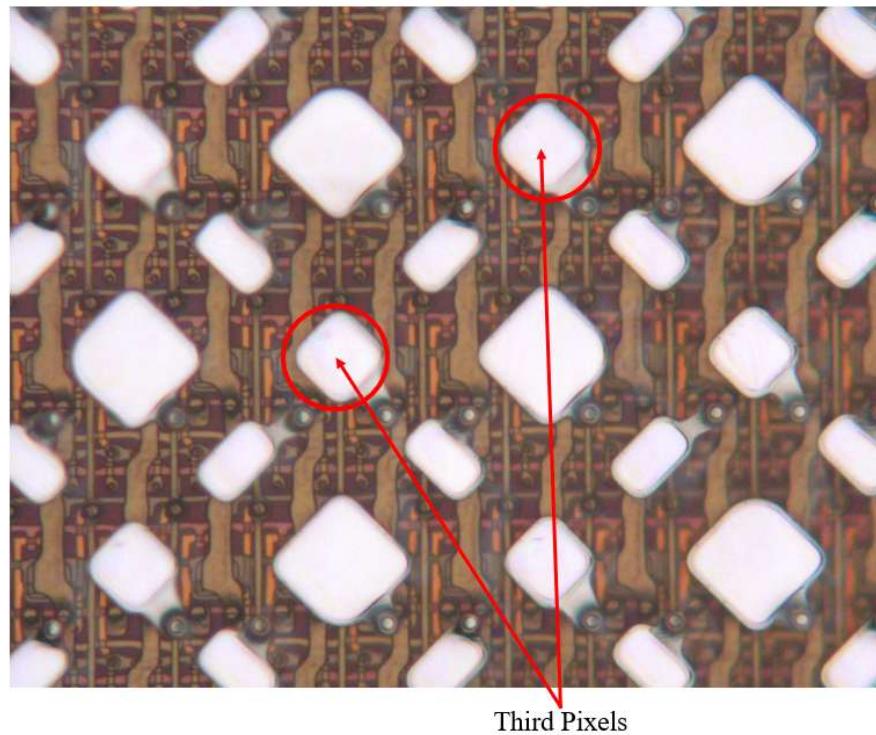
**Figure 36**

103. As shown in the image below (Fig. 37), the BOE OLED Display comprises a pixel arrangement structure comprising “a plurality of second pixels.”



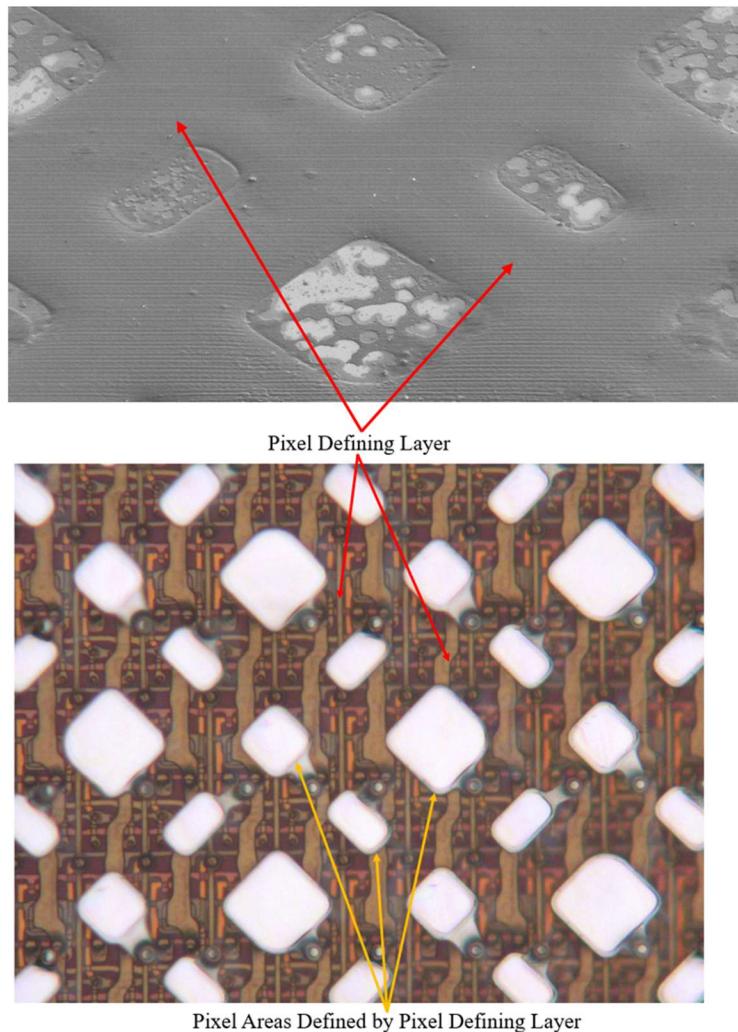
**Figure 37**

104. As shown in the image below (Fig. 38), the BOE OLED Display comprises a pixel arrangement structure comprising “a plurality of third pixels.”



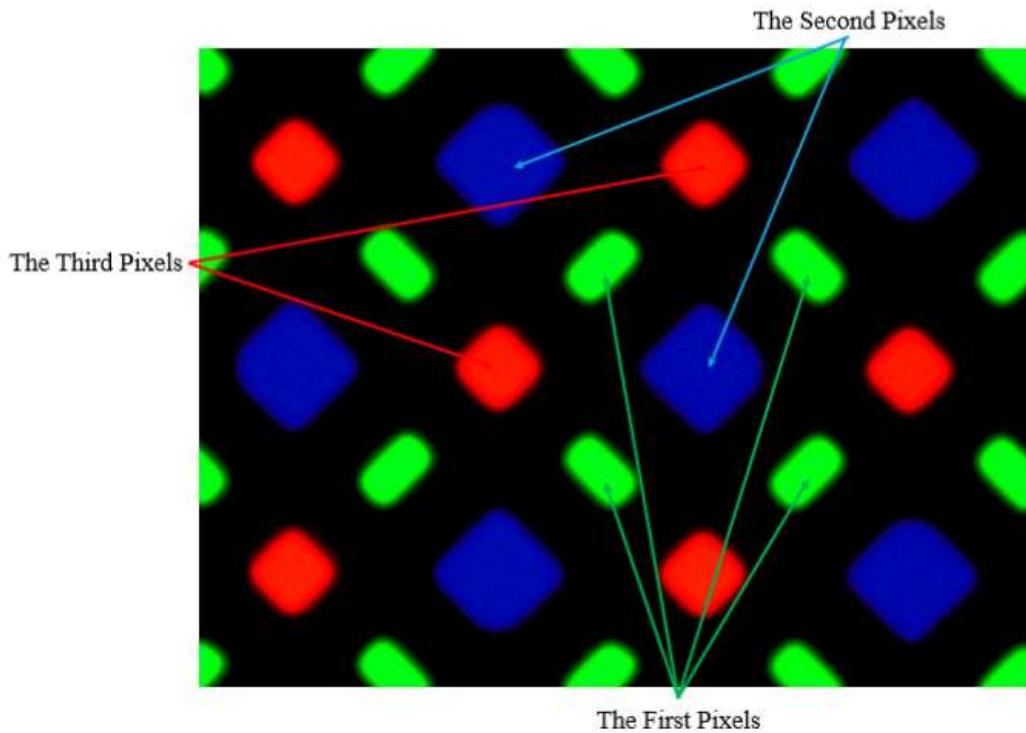
**Figure 38**

105. The BOE OLED Display “comprises a pixel defining layer defining areas of the first pixels, the second pixels, and the third pixels.” A pixel defining layer is formed to define the area of each pixel, as shown by the boundaries surrounding each pixel in the image below (Fig. 39).



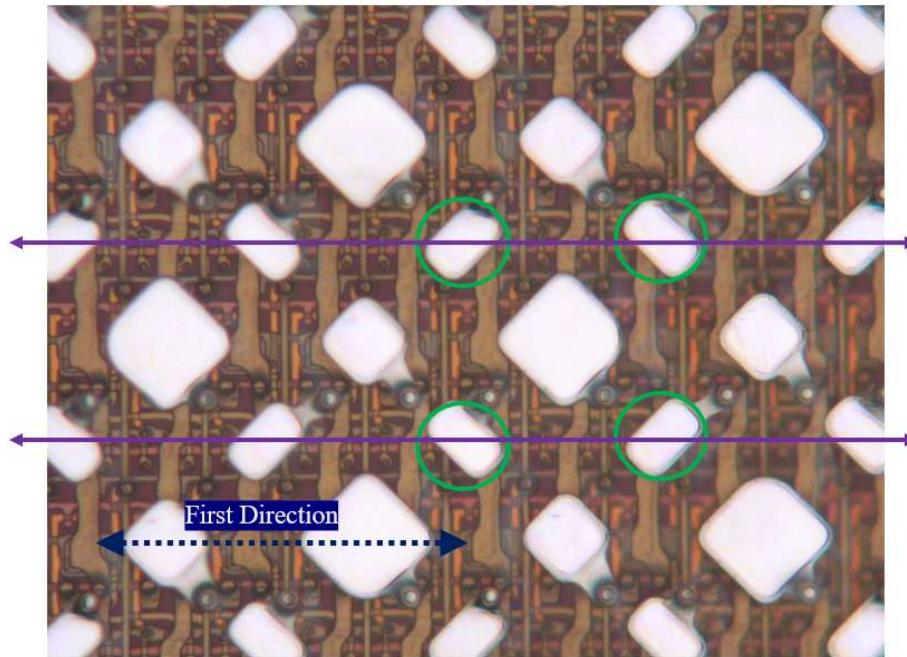
**Figure 39**

106. In the BOE OLED Display, “the first pixels, the second pixels, and the third pixels are configured to emit different color lights.” As shown in the image below (Fig. 40), the first pixels (green arrows) are configured to emit green light, the second pixels (blue arrows) are configured to emit blue light, and the third pixels (red arrows) are configured to emit red light.



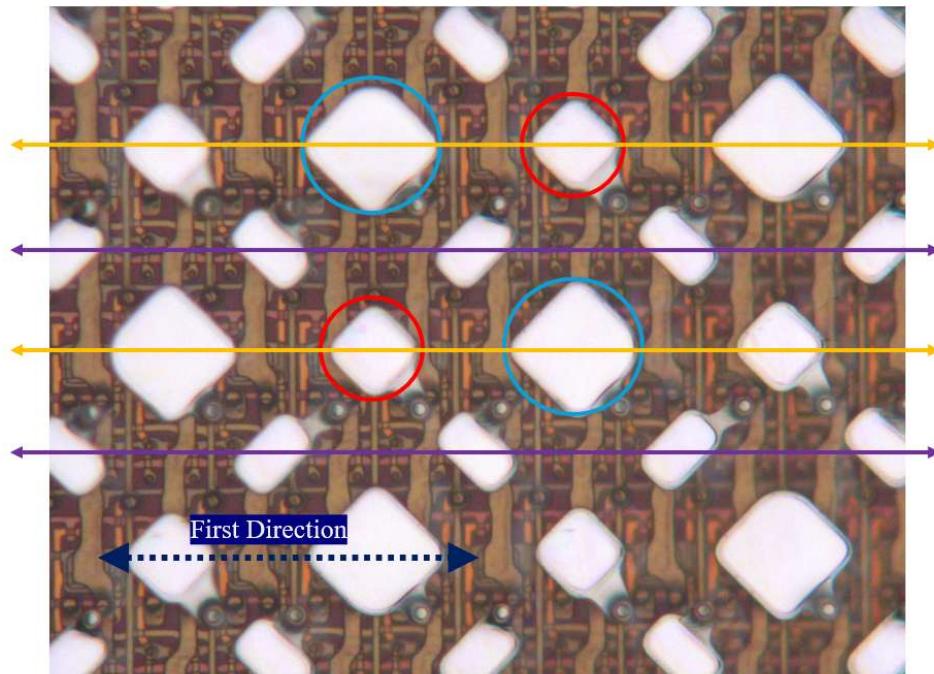
**Figure 40**

107. In the BOE OLED Display, “the first pixels are arranged in first sets extending along a first direction to form respective first lines.” As shown in the image below (Fig. 41), the first pixels (green circles) are arranged in first sets extending along a first direction to form respective first lines (purple lines).



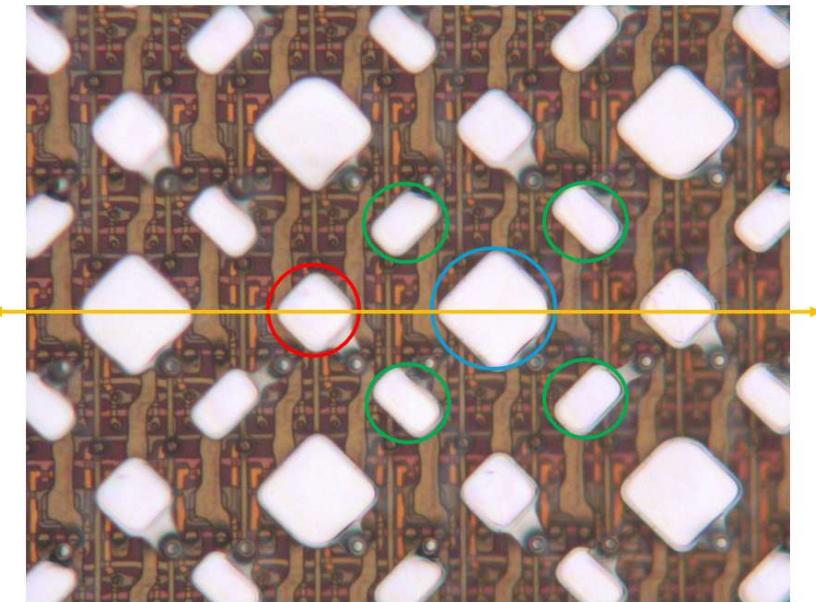
**Figure 41**

108. In the BOE OLED Display, “the second pixels and the third pixels are alternately arranged in second sets extending along the first direction to form respective second lines parallel to the first lines.” As shown in the image below (Fig. 42), the second pixels (blue circles) and the third pixels (red circles) are alternately arranged in second sets extending along the first direction to form respective second lines (orange lines) parallel to the first lines (purple lines).



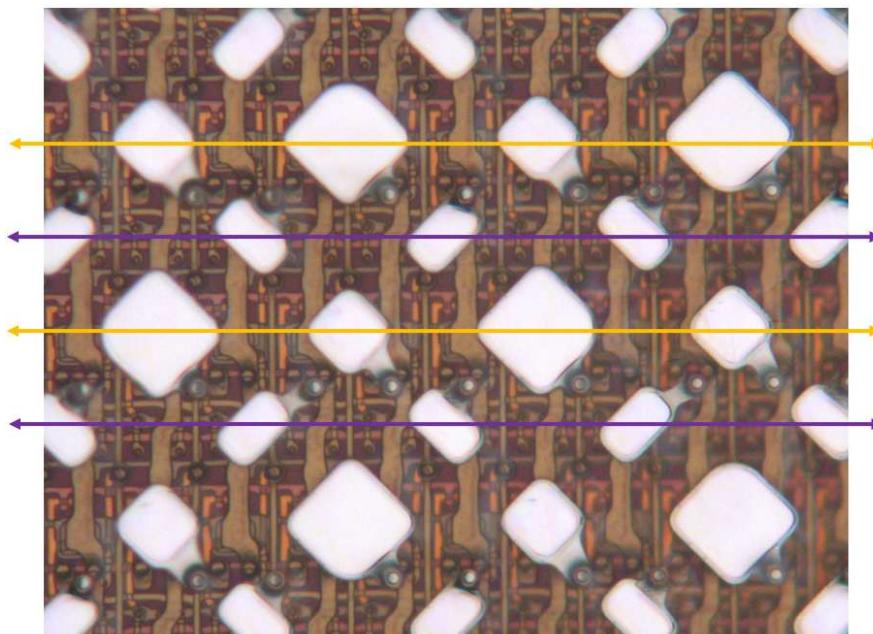
**Figure 42**

109. In the BOE OLED Display, “one of the second lines passes through centers of the second pixels and the third pixels in a corresponding one of the second sets and passes between the first pixels in corresponding adjacent ones of the first sets.” As shown in the image below (Fig. 43), one of the second lines (orange line) passes through centers of the second pixels and the third pixels in a corresponding one of the second sets (blue circle and red circle) and passes between the first pixels in corresponding adjacent ones of the first sets (green circles).



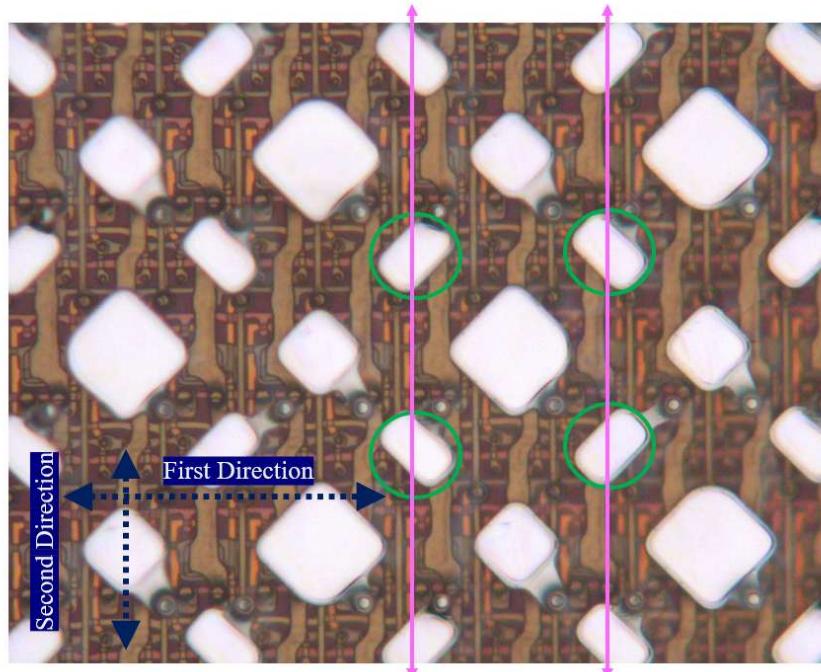
**Figure 43**

110. In the BOE OLED Display, “the first lines and the second lines are alternately arranged.” As shown in the image below (Fig. 44), the first lines (purple lines) and the second lines (orange lines) are alternately arranged.



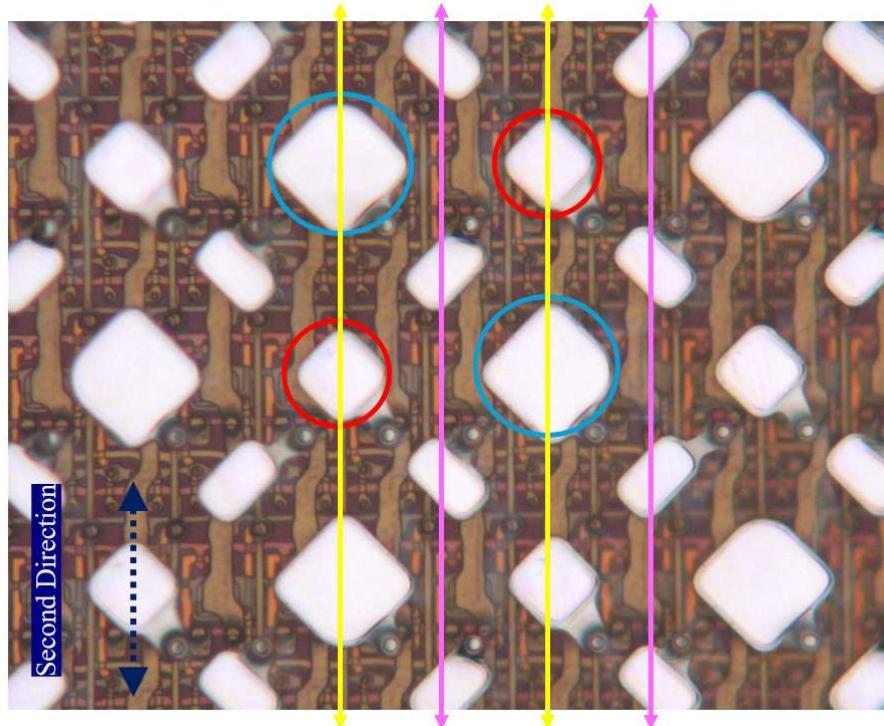
**Figure 44**

111. In the BOE OLED Display, “the first pixels are also arranged in third sets extending along a second direction that is perpendicular to the first direction to form respective third lines.” As shown in the image below (Fig. 45), the first pixels (green circles) are also arranged in third sets extending along a second direction that is perpendicular to the first direction to form respective third lines (pink lines).



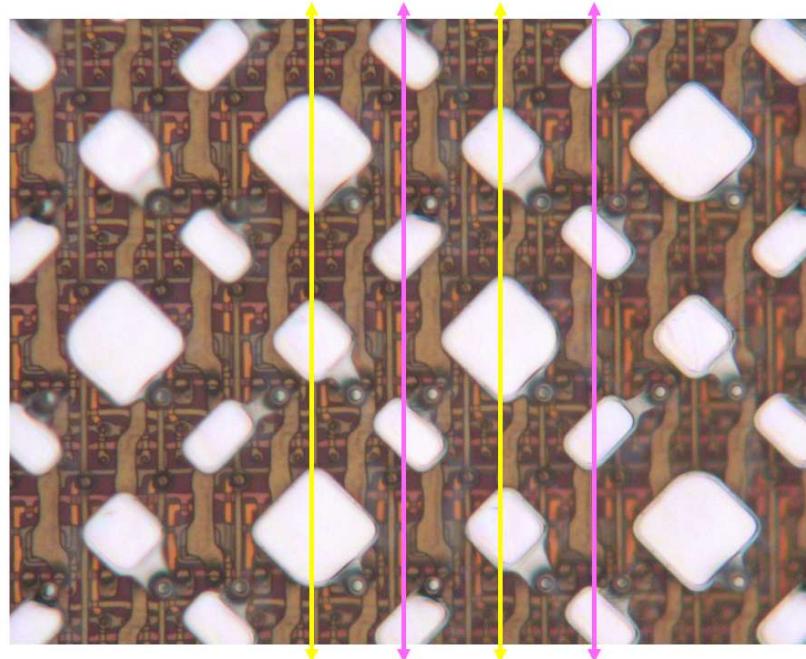
**Figure 45**

112. In the BOE OLED Display, “the second pixels and the third pixels are also alternately arranged in fourth sets extending along the second direction to form respective fourth lines that are parallel to the third lines.” As shown in the image below (Fig. 46), the second pixels (blue circles) and the third pixels (red circles) are also alternately arranged in fourth sets extending along the second direction to form respective fourth lines (yellow lines) that are parallel to the third lines (pink lines).



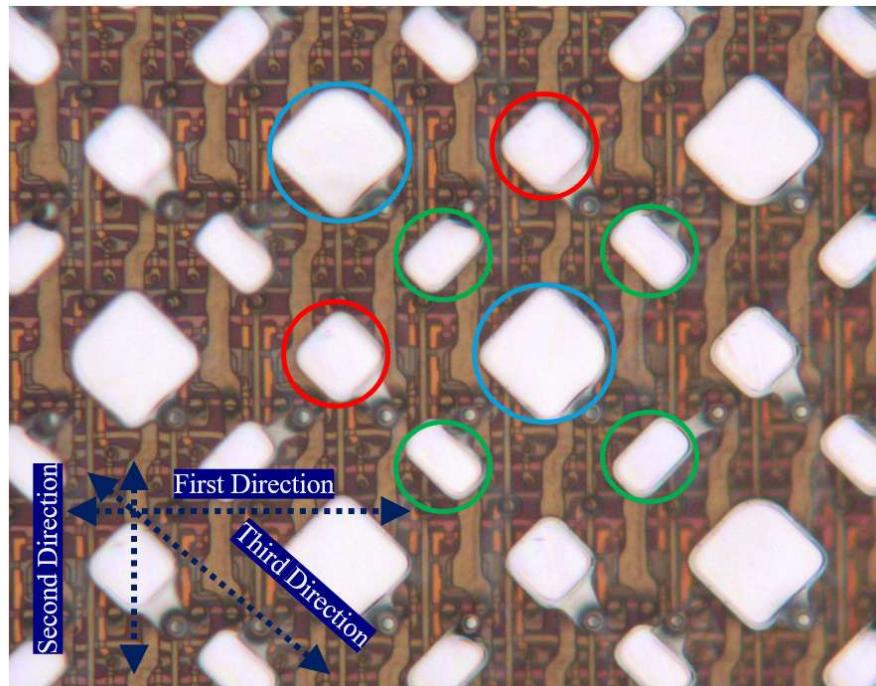
**Figure 46**

113. In the BOE OLED Display, “the third lines and the fourth lines are alternately arranged.” As shown in the image below (Fig. 47), the third lines (pink lines) and the fourth lines (yellow lines) are alternately arranged.

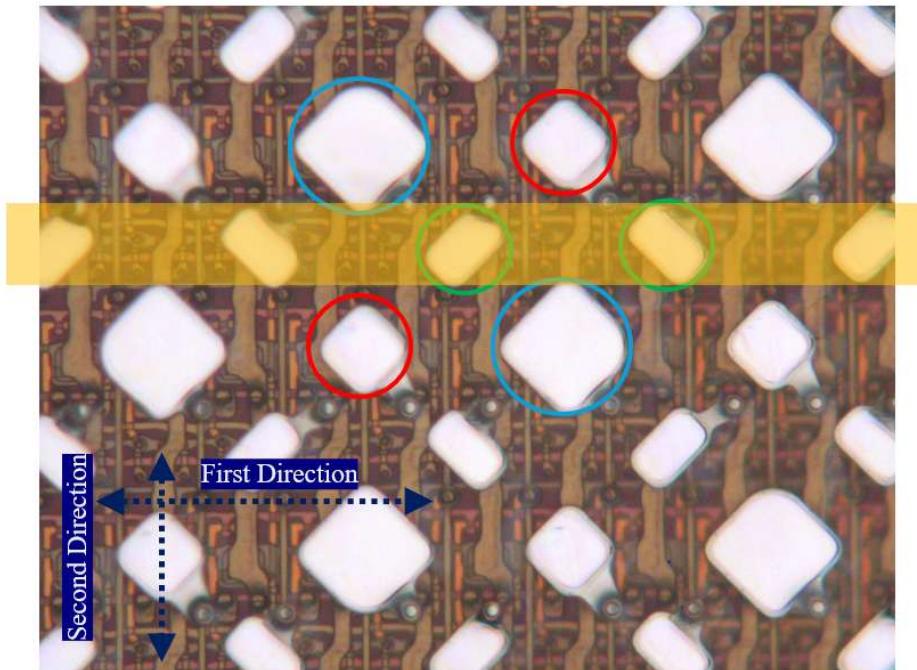


**Figure 47**

114. In the BOE OLED Display, “the first pixels and either the second pixels or the third pixels are alternately arranged along a third direction, which crosses the first direction and the second direction.” As shown in the image below (Fig. 48), the first pixels (green circles) and either the second pixels (blue circles) or the third pixels (red circles) are alternately arranged along a third direction, which crosses the first direction and the second direction.

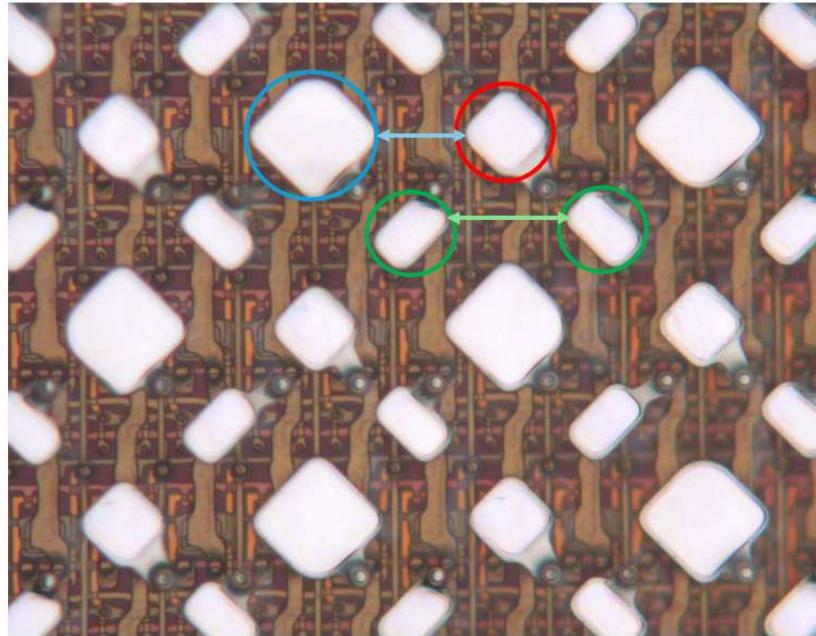
**Figure 48**

115. In the BOE OLED Display, “a region having a width in the second direction that is equal to a width of the first pixels in the second direction, extending parallel to the first direction, and completely overlapping a row of the first pixels extending in the first direction, is entirely offset in the second direction from at least one of the second pixels or the third pixels in at least one of rows of the second pixels and the third pixels adjacent to the row of the first pixels.” As shown in the image below (Fig. 49), a region (orange region) having a width in the second direction that is equal to a width of the first pixels in the second direction, extending parallel to the first direction, and completely overlapping a row of the first pixels extending in the first direction, is entirely offset in the second direction from at least one of the second pixels (blue circles) or the third pixels (red circles) in at least one of rows of the second pixels and the third pixels adjacent to the row of the first pixels.



**Figure 49**

116. In the BOE OLED Display, “a shortest distance between two nearest ones of the first pixels in one of the first sets is greater than a shortest distance between one of the second pixels and one of the third pixels that are nearest each other in one of the second sets.” As shown in the image below (Fig. 50), a shortest distance (light green) between two nearest ones of the first pixels in one of the first sets (green circles) is greater than a shortest distance (light blue) between one of the second pixels and one of the third pixels that are nearest each other in one of the second sets (blue circle and red circle).



**Figure 50**

117. Upon information and belief, and as shown above in the example of the BOE OLED Display used in the Nubia Z60 Ultra product, the Accused Products meet every limitation of at least claim 1 of the '578 Patent.

118. By making, using, offering for sale, selling, and/or importing into the United States the Accused Products, including the OLED displays used in Nubia Z60 Ultra products, BOE directly infringes at least claim 1 of the '578 Patent.

119. Upon information and belief, BOE has induced infringement of the '578 Patent under 35 U.S.C. § 271(b) by knowingly and intentionally inducing others to directly infringe the '578 Patent. Despite having notice of the '578 Patent—including through at least Samsung Display's March 10, 2023 motion for leave to amend its ITC complaint to include claims for infringement of the recently issued '578 Patent—and the initial determination in the -1351 Proceeding finding infringement of the '578 Patent, BOE has actively encouraged others to infringe the patent. For example, upon information and belief, BOE has knowingly and intentionally induced third-party

manufacturers, shippers, distributors, and/or retailers to directly infringe (literally and/or under the doctrine of equivalents) the '578 Patent using, offering to sell, and/or selling in the United States, and/or importing into the United States, products containing infringing BOE OLED displays. BOE's OLED displays are especially designed to contain features that infringe the '578 Patent and the Accused Products have no substantial uses other than ones that infringe the '578 Patent.

120. Moreover, upon information and belief, BOE takes active steps, directly and/or through contractual relationships with others, with the specific intent to cause such persons to use, offer to sell, sell, and/or import products containing BOE OLED displays that infringe at least claim 1 of the '578 Patent. Upon information and belief, such steps by BOE include, among other things, making or selling the Accused Products, including BOE OLED displays for at least the Nubia Z60 Ultra products, for importation into or sale in the United States, knowing that such importation or sale would occur. Indeed, Mianyang BOE has admitted in the -1351 Proceeding that it manufactures and sells AMOLED screens that are imported into the United States. Upon information and belief, Mianyang BOE was thus aware that its infringing OLED displays would be imported into the US (and that use of the infringing OLED displays would infringe), yet it sold those displays to those customers anyway. Upon information and belief, BOE has engaged in these activities with knowledge of the '578 Patent and knowledge that the induced acts constitute infringement. BOE's inducement of infringement of the '578 Patent is ongoing.

121. Upon information and belief, BOE has also contributorily infringed the '578 Patent under 35 U.S.C. § 271(c) through its supply of BOE OLED displays to customers that incorporate those OLED displays into other products, including at least the Nubia Z60 Ultra product. The BOE OLED displays have no substantial non-infringing uses and are especially designed and made for use in devices that infringe the '578 Patent. BOE has engaged in these activities despite having notice

of the '578 Patent, and the OLED displays that BOE has sold and/or provided to customers embody a material part of the claimed invention of at least claim 1 of the '578 Patent. BOE's contributory infringement of the '578 Patent is ongoing.

122. Upon information and belief, BOE's infringement has been, and continues to be, willful. For example, upon information and belief, BOE has been on notice of the '578 Patent and its infringement of the '578 Patent since at least Samsung Display's March 10, 2023 motion for leave to amend its ITC complaint to include claims for infringement of the recently issued '578 Patent. Furthermore, the initial determination in the -1351 Proceeding found infringement of the '578 Patent by Mianyang BOE. This infringement finding was not challenged by the Respondents. Yet, BOE has continued its infringing activities.

#### **COUNT IV – INFRINGEMENT OF U.S. PATENT NO. 7,414,599**

123. Samsung Display hereby incorporates the allegations of Paragraphs 1 through 122 as if fully set forth herein.

124. Upon information and belief, Defendants have infringed and continue to directly infringe the '599 Patent by making, using, offering for sale, selling, and/or importing into the United States OLED displays, such as OLED displays incorporated into the Nubia Z60 Ultra product.

125. Independent claim 15 of the '599 Patent recites:

15. A pixel circuit in an organic light emitting device, comprising:

a first transistor including a gate to which a current scan signal is applied, and a source to which a data signal voltage is applied;

a second transistor whose source is coupled to a drain of the first transistor;

a third transistor whose drain and source are connected between a gate and a drain of the second transistor;

a fourth transistor including a gate to which a current light-emitting signal is applied, a source to which a power supply voltage is applied, and a drain coupled to the source of the second transistor;

a fifth transistor including a gate to which the current light-emitting signal is applied, a source coupled to the drain of the second transistor, and a drain coupled to one terminal of an electroluminescent element;

the electroluminescent element having the one terminal coupled to the drain of the fifth transistor and the other terminal grounded; and

a capacitor in which one terminal of the capacitor is coupled to the gate of the second transistor and a power supply voltage is applied to the other terminal of the capacitor.

126. Upon information and belief, the BOE OLED Display meets each of the limitations of claim 15.

127. For example, the images below (Figures 51–53) are of a Nubia Z60 Ultra product that, on information and belief, contains an organic light emitting diode display supplied by BOE.



**Figure 51**

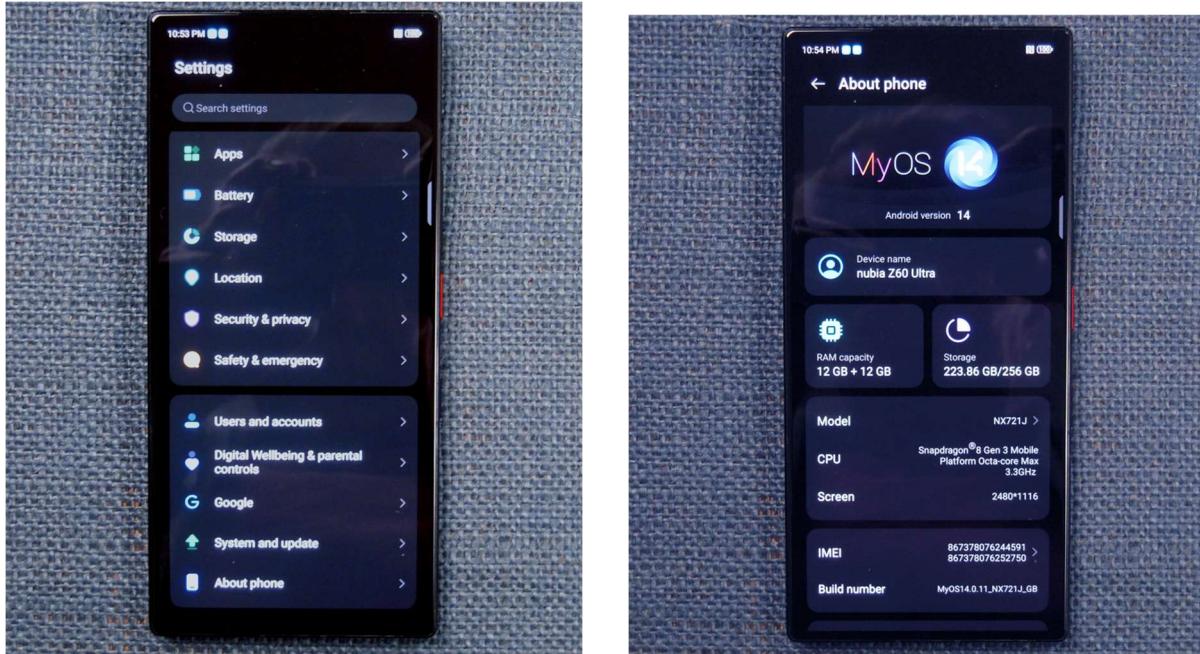
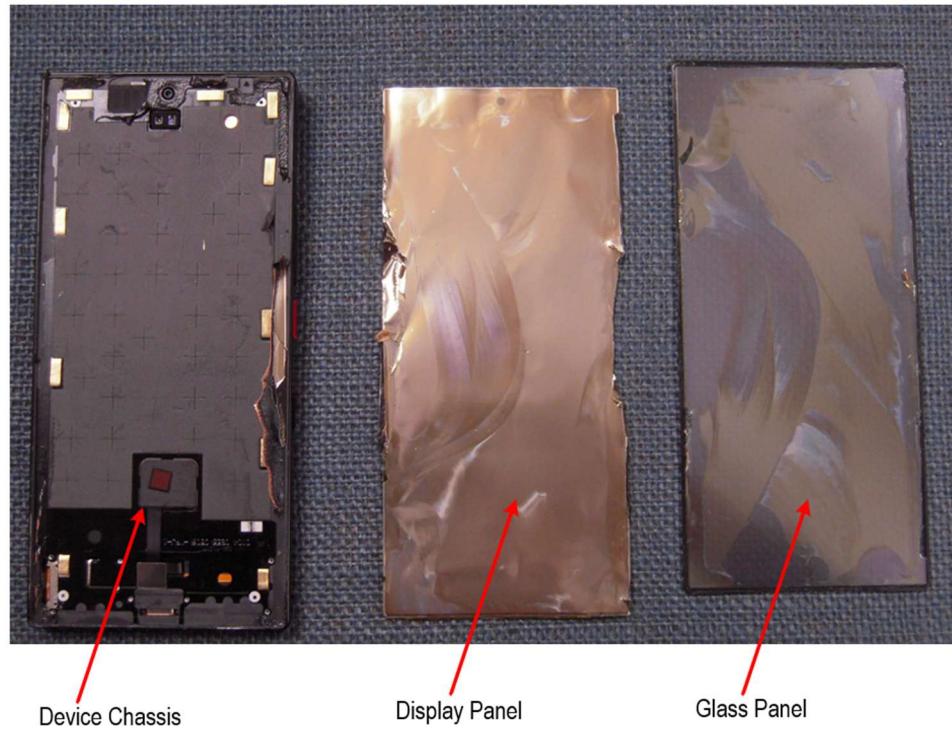


Figure 52

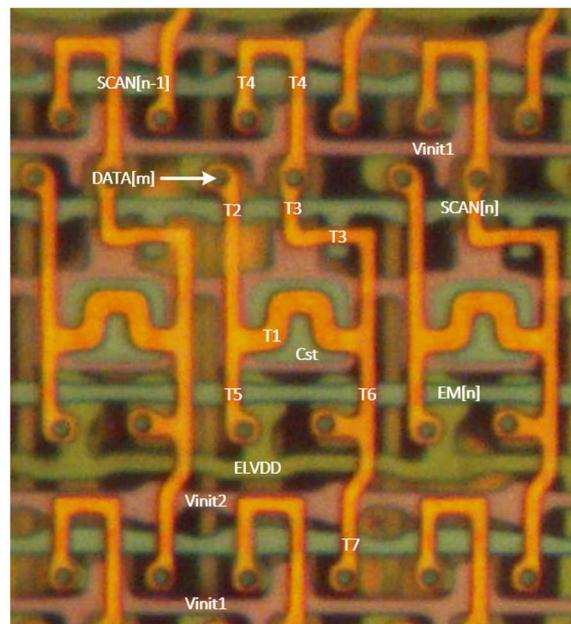


Figure 53

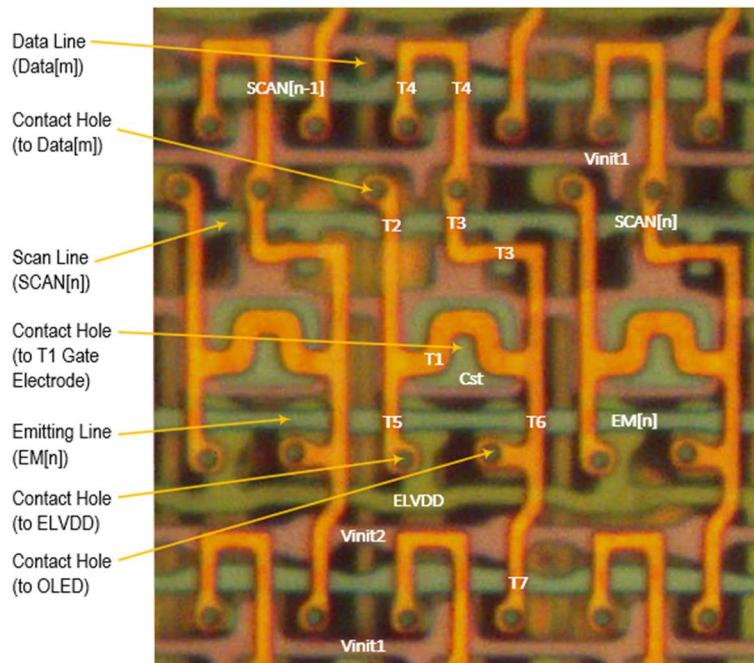
128. The BOE OLED Display is mounted within the device chassis and is located behind a glass panel, and in the image below (Fig. 54), the display panel can be seen.

**Figure 54**

129. The BOE OLED Display comprises “a pixel circuit in an organic light emitting device.” The annotated image below (Fig. 55) (backside image of the BOE OLED Display) shows a pixel circuit of the BOE OLED Display, including transistors T1–T7 and a storage capacitor Cst.

**Figure 55**

130. The pixel circuit of the BOE OLED Display comprises “a first transistor including a gate to which a current scan signal is applied, and a source to which a data signal voltage is applied.” As shown in the annotated backside image below (Fig. 56), a source of the first transistor (e.g., T2) is coupled to a data signal line (DATA[m]) for delivering a data signal voltage. The gate of first transistor T2 is coupled to a scan line (SCAN[n]) that provides a current scan line signal. On information and belief, in response to a current scan line signal delivered on scan line (SCAN[n]), first transistor T2 delivers a data signal voltage from data line (DATA[m]).



**Figure 56**

131. As is further reflected in the exemplary annotated images below (Fig. 57 (backside image) and Fig. 58 (front side image)), on information and belief, in response to the current scan line signal (blue line) applied to SCAN[n], T2 delivers the data signal voltage (red line) present on data line (DATA[m]). The annotated images below depict an exemplary voltage path from DATA[m] through T2-T1-T3 to the gate of transistor T1.

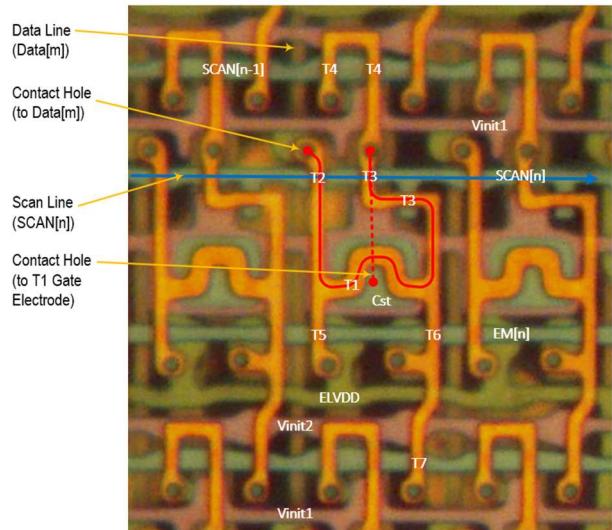


Figure 57

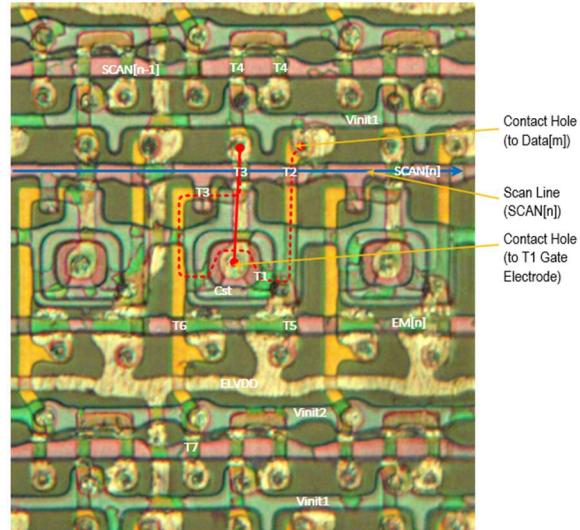


Figure 58

132. The pixel circuit of the BOE OLED Display comprises a “a second transistor whose source is coupled to a drain of the first transistor.” As shown in the annotated backside image below (Fig. 59), the source of the second transistor (e.g., T1) is coupled to the drain of first transistor (e.g., T2).

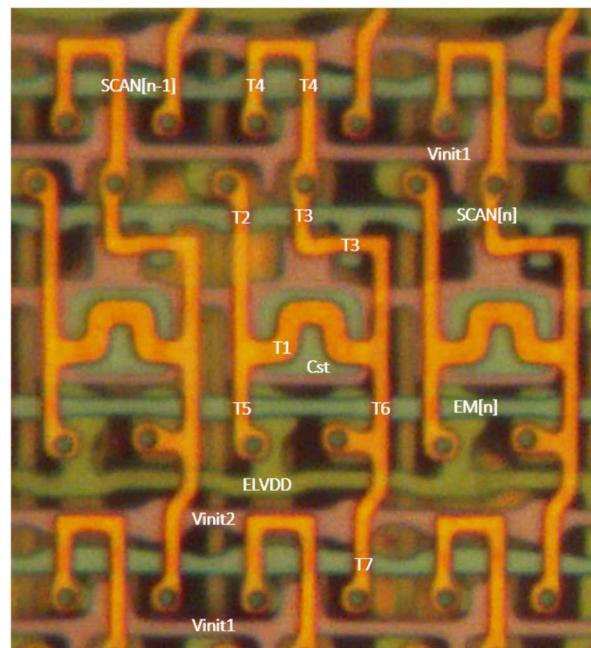
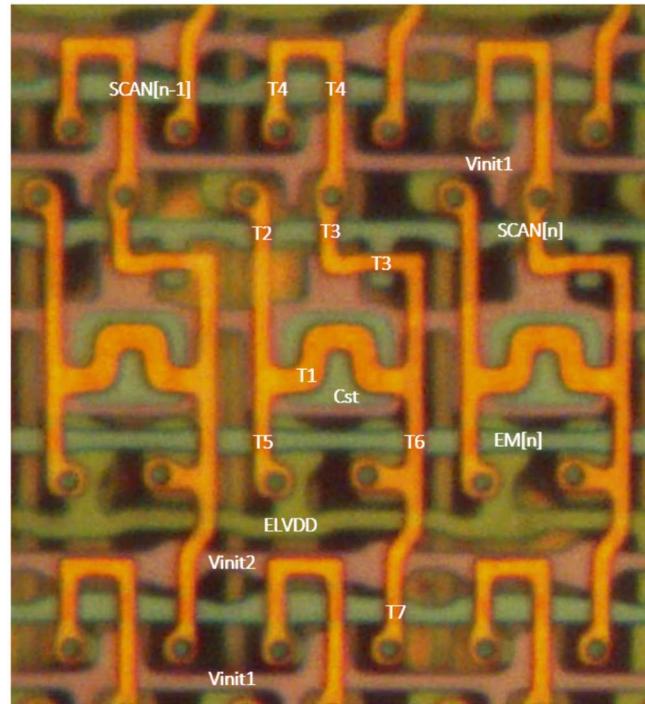


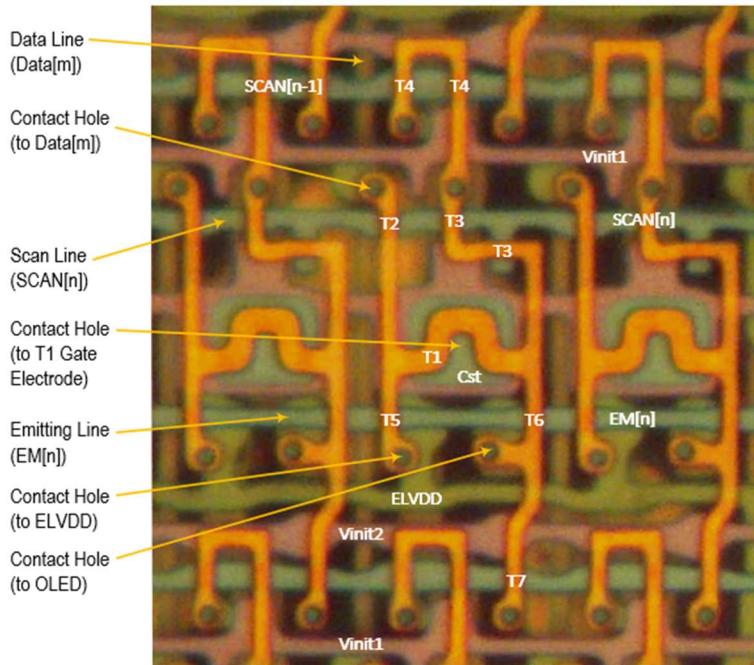
Figure 59

133. The pixel circuit of the BOE OLED Display comprises a “a third transistor whose drain and source are connected between a gate and a drain of the second transistor.” As shown in the annotated backside image below (Fig. 60), a third transistor (e.g., T3) has drain and source electrodes connected between gate and drain electrodes of the second transistor (e.g., T1), respectively.



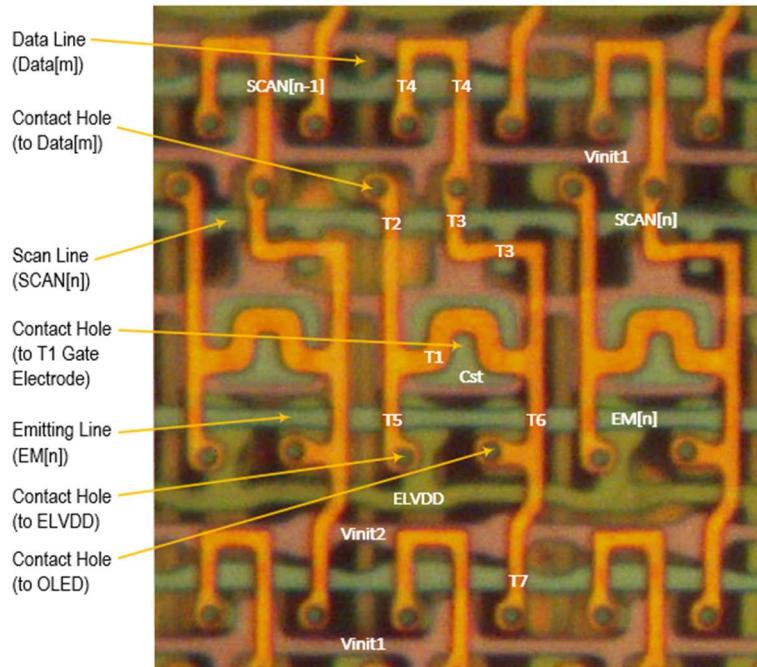
**Figure 60**

134. The pixel circuit of the BOE OLED Display comprises a “a fourth transistor including a gate to which a current light-emitting signal is applied, a source to which a power supply voltage is applied, and a drain coupled to the source of the second transistor.” As shown in the annotated backside image below (Fig. 61), a fourth transistor (e.g., T5) has a source coupled to ELVDD and a drain coupled to the source of transistor T1. On information and belief, in response to a current light-emitting signal delivered on emission line (EM[n]), fourth transistor T5 delivers a power supply voltage from ELVDD to second transistor T1.

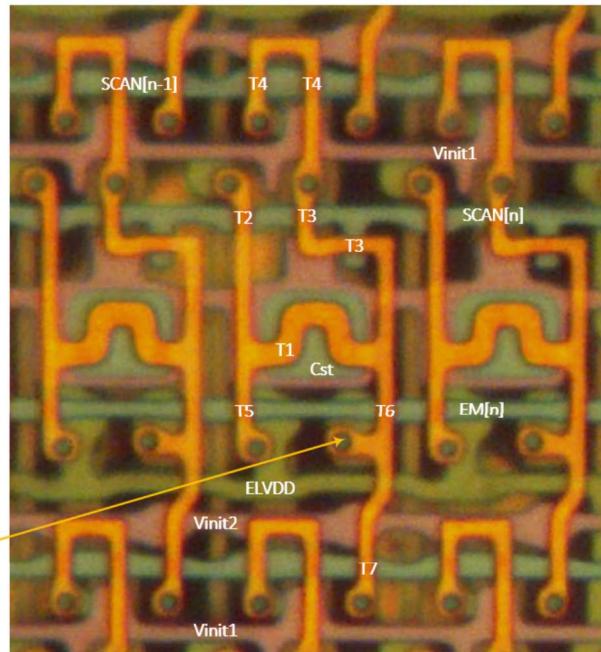


**Figure 61**

135. The pixel circuit of the BOE OLED Display comprises a “a fifth transistor including a gate to which the current light-emitting signal is applied, a source coupled to the drain of the second transistor, and a drain coupled to one terminal of an electroluminescent element.” As shown in the annotated backside image below (Fig. 62), a fifth transistor (e.g., T6) has a source coupled to a drain of second transistor (e.g., T1), and a drain is coupled to one terminal of an electroluminescent element (e.g., OLED) through a contact hole. As further shown in the exemplary annotated image below, on information and belief, in response to a current light-emitting signal delivered on emission line (EM[n]), fifth transistor (e.g., T6) turns on and delivers driving current that flows through second transistor T1 to the OLED.

**Figure 62**

136. The pixel circuit of the BOE OLED Display comprises “the electroluminescent element having the one terminal coupled to the drain of the fifth transistor and the other terminal grounded.” As shown in the annotated backside image below (Fig. 63), the pixel circuit has an electroluminescent element (OLED) with a first terminal, the anode, coupled to the drain of the fifth transistor (e.g., T6). On information and belief, the other terminal of the OLED is grounded to facilitate the flow of current from fifth transistor (e.g., T6) through the anode of the OLED to the cathode in the light-emission phase.



**Figure 63**

137. The pixel circuit of the BOE OLED Display comprises a “a capacitor in which one terminal of the capacitor is coupled to the gate of the second transistor and a power supply voltage is applied to the other terminal of the capacitor.” As shown in the annotated backside image below (Fig. 64), the storage capacitor Cst has an upper plate (red dashed lines) and a lower plate (blue dashed lines). Capacitor Cst’s lower plate is coupled to the gate of the second transistor (e.g., T1). Moreover, as shown in the exemplary annotated front-side image below (Fig. 65), the upper plate of capacitor Cst is coupled to the power supply voltage ELVDD via contact holes.

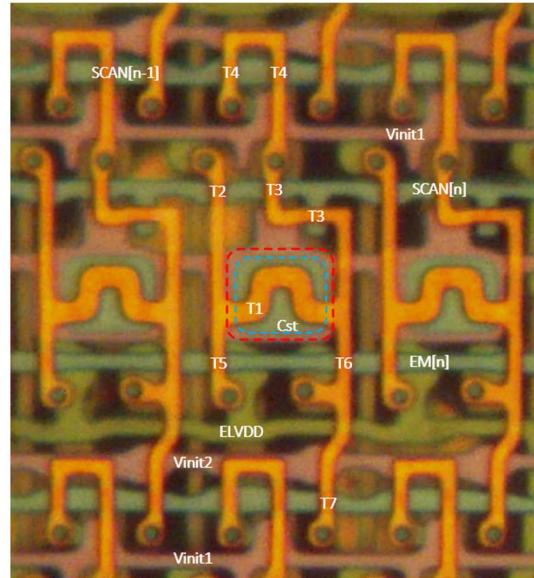


Figure 64

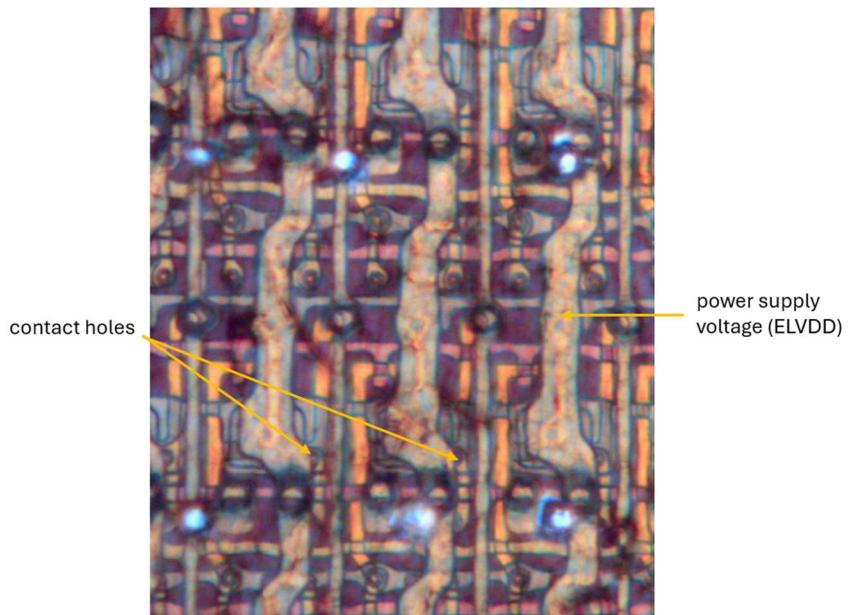


Figure 65

138. Upon information and belief, and as shown above in the example of the BOE OLED Display used in the Nubia Z60 Ultra product, the Accused Products meet every limitation of at least claim 15 of the '599 Patent.

139. By making, using, offering for sale, selling, and/or importing into the United States the Accused Products, including the OLED displays used in Nubia Z60 Ultra products, BOE directly infringes at least claim 15 of the '599 Patent.

140. Upon information and belief, BOE has induced infringement of the '599 Patent under 35 U.S.C. § 271(b) by knowingly and intentionally inducing others to directly infringe the '599 Patent. Despite having notice of the '599 Patent—including through at least its receipt of Samsung Display's May 2, 2022 notice letter specifically informing BOE of its infringing activity—and the initial determination in the -1351 Proceeding finding infringement of the '599 Patent, BOE has actively encouraged others to infringe the patent. For example, upon information and belief, BOE has knowingly and intentionally induced third-party manufacturers, shippers, distributors, and/or retailers to directly infringe (literally and/or under the doctrine of equivalents) the '599 Patent by using, offering to sell, and/or selling in the United States, and/or importing into the United States, products containing infringing BOE OLED displays. BOE's OLED displays are especially designed to contain features that infringe the '599 Patent and the Accused Products have no substantial uses other than ones that infringe the '599 Patent.

141. Moreover, upon information and belief, BOE takes active steps, directly and/or through contractual relationships with others, with the specific intent to cause such persons to use, offer to sell, sell, and/or import products containing BOE OLED displays that infringe at least claim 15 of the '599 Patent. Upon information and belief, such steps by BOE include, among other things, making or selling the Accused Products, including BOE OLED displays for at least the Nubia Z60 Ultra products, for importation into or sale in the United States, knowing that such importation or sale would occur. Indeed, Mianyang BOE has admitted in the -1351 Proceeding that it manufactures and sells AMOLED screens that are imported into the United States. Upon information and belief,

Mianyang BOE was thus aware that its infringing OLED displays would be imported into the US (and that use of the infringing OLED displays would infringe), yet it sold those displays to those customers anyway. Upon information and belief, BOE has engaged in these activities with knowledge of the '599 Patent and knowledge that the induced acts constitute infringement. BOE's inducement of infringement of the '599 Patent is ongoing.

142. Upon information and belief, BOE has also contributorily infringed the '599 Patent under 35 U.S.C. § 271(c) through its supply of BOE OLED displays to customers that incorporate those OLED displays into other products, including at least the Nubia Z60 Ultra product. The BOE OLED displays have no substantial non-infringing uses and are especially designed and made for use in devices that infringe the '599 Patent. BOE has engaged in these activities despite having notice of the '599 Patent, and the OLED displays that BOE has sold and/or provided to customers embody a material part of the claimed invention of at least claim 15 of the '599 Patent. BOE's contributory infringement of the '599 Patent is ongoing.

143. Upon information and belief, BOE's infringement has been, and continues to be, willful. For example, upon information and belief, BOE has been on notice of the '599 Patent and its infringement of the '599 Patent since at least its receipt of Samsung Display's May 2, 2022 notice letter specifically informing BOE of its infringing activity. Furthermore, the initial determination in the -1351 Proceeding found infringement of the '599 Patent by Mianyang BOE. Yet, BOE has continued its infringing activities.

#### **COUNT V – INFRINGEMENT OF U.S. PATENT NO. 9,330,593**

144. Samsung Display hereby incorporates the allegations of Paragraphs 1 through 143 as if fully set forth herein.

145. Upon information and belief, BOE has infringed and continue to directly infringe the '593 Patent by making, using, offering for sale, selling, and/or importing into the United States

OLED displays for incorporation into the Accused Products, such as OLED displays incorporated into the Nubia Z60 Ultra product.

146. Independent claim 1 of the '593 Patent recites:

1. A stage circuit having a first input terminal, a second input terminal, a third input terminal, and an output terminal, the stage circuit comprising:

an outputting unit having a first node and a second node, the outputting unit to supply a voltage of a first power supply to the output terminal according to a voltage applied to the first node and a signal of the third input terminal to the output terminal according to a voltage applied to the second node;

a first driver to control the voltage of the second node in accordance with signals of the first input terminal, the second input terminal, and the third input terminal; and

a second driver to control the voltage of the first node in accordance with the signal of the second input terminal and the voltage of the second node,

wherein the signal of the third input terminal directly controls an on/off operation of a transistor, the transistor included in the first driver.

147. Upon information and belief, the BOE OLED Display meets each of the limitations of claim 1.

148. For example, the images below (Figures 66–68) are of a Nubia Z60 Ultra product that, on information and belief, contains an organic light emitting diode display supplied by BOE.



**Figure 66**

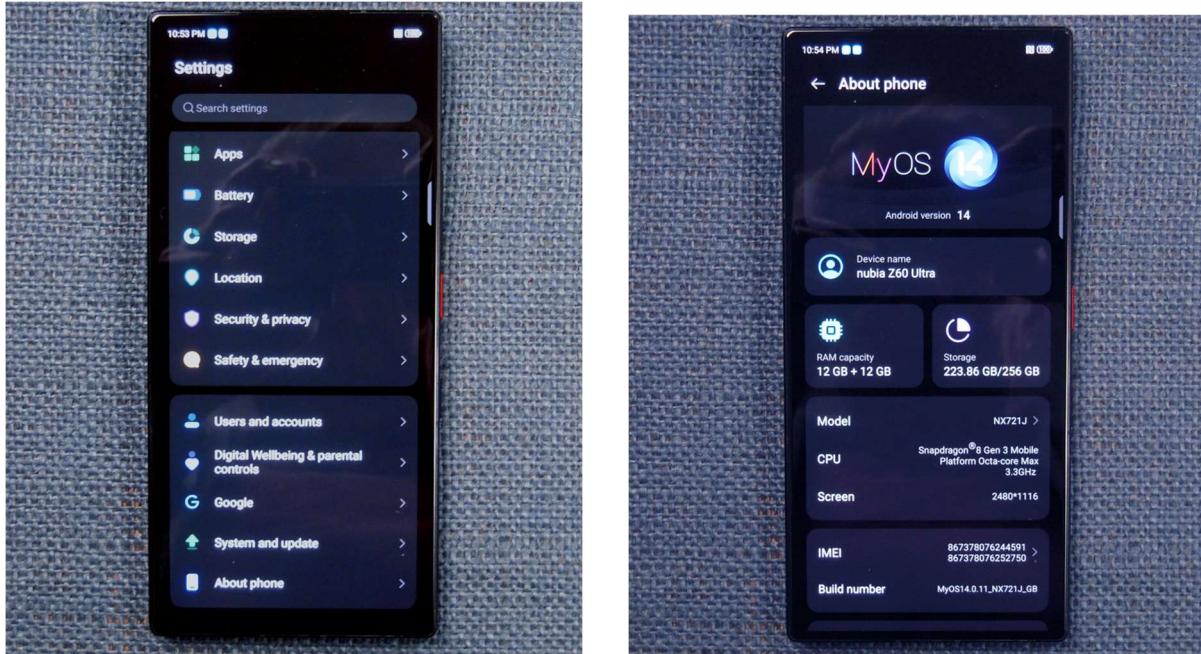
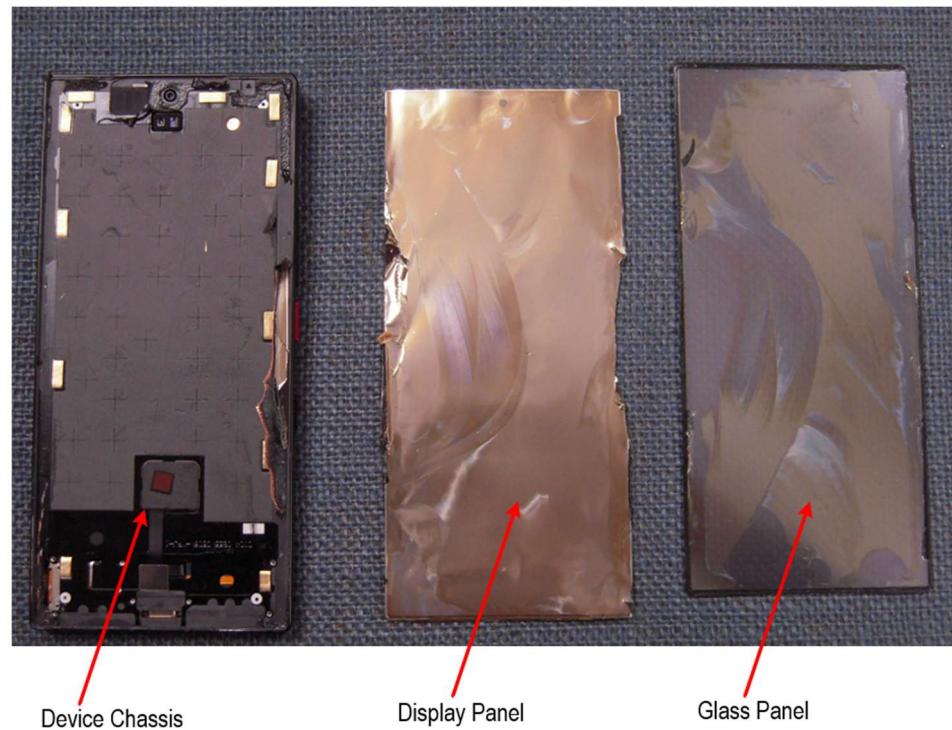


Figure 67



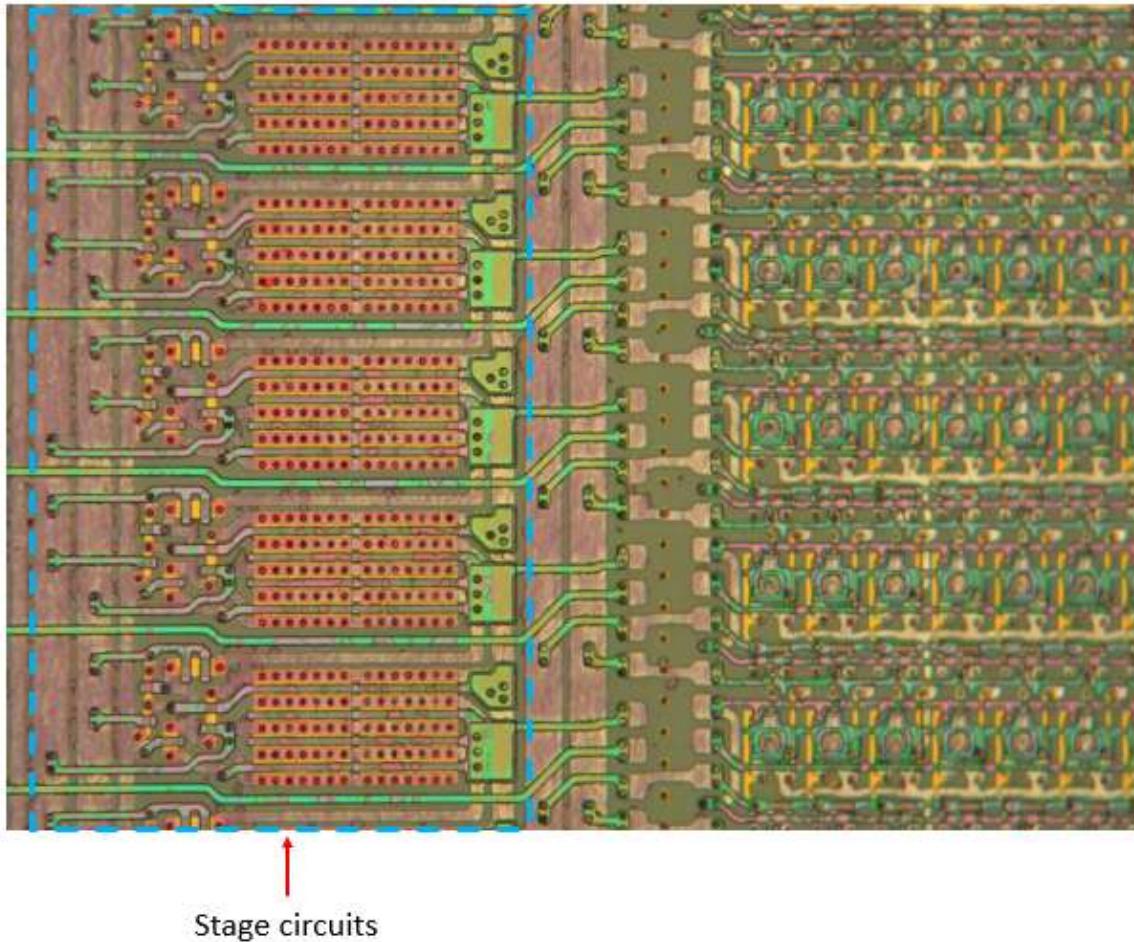
Figure 68

149. The BOE OLED Display is mounted within the device chassis and is located behind a glass panel, and in the image below (Fig. 69), the display panel can be seen.



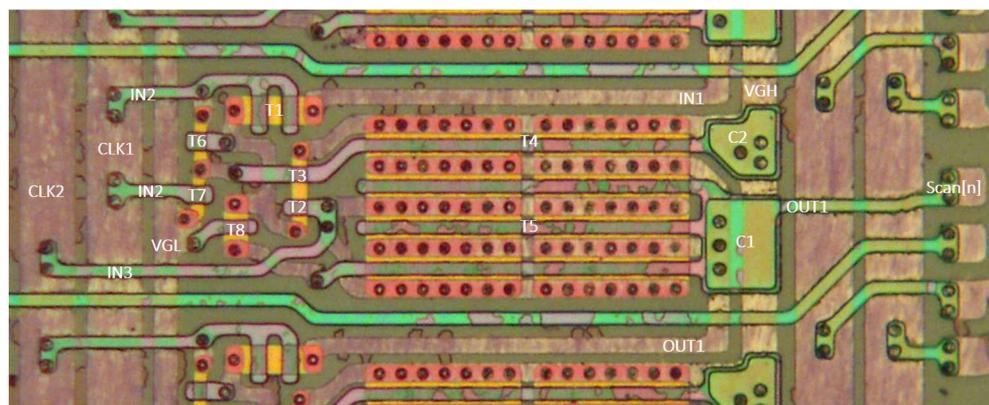
**Figure 69**

150. As shown in the annotated image below (Fig. 70), the BOE OLED Display contains a scan driver with a plurality of stage circuits (blue dashed lines).



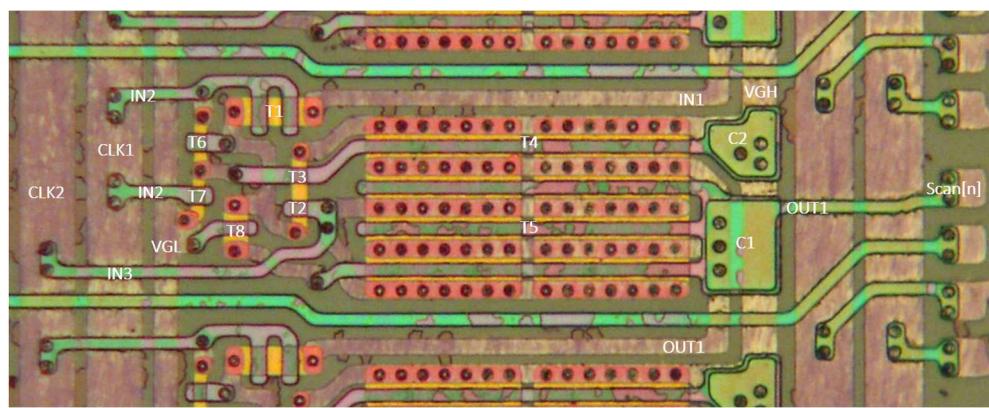
**Figure 70**

151. The BOE OLED Display contains “a stage circuit having a first input terminal” (IN1), “a second input terminal” (IN2), “a third input terminal” (IN3), and “an output terminal” (OUT1), as annotated in the image below (Fig. 71).



**Figure 71**

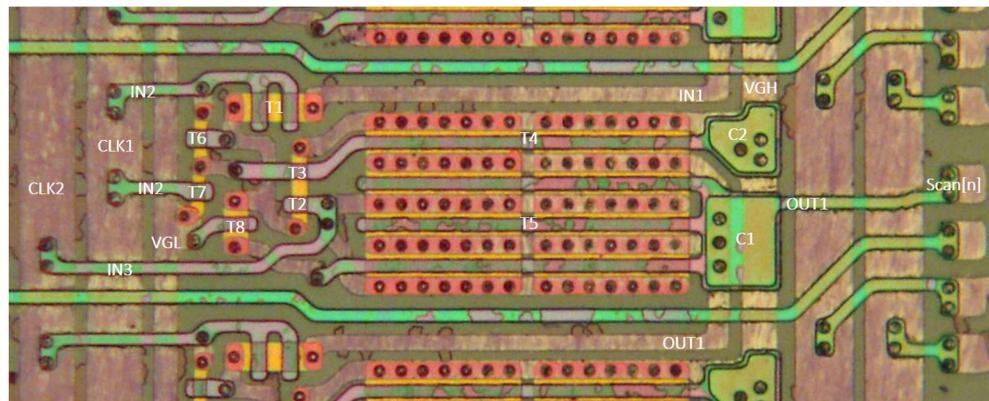
152. The BOE OLED Display contains a stage circuit that includes “an outputting unit having a first node and a second node, the outputting unit to supply a voltage of a first power supply to the output terminal according to a voltage applied to the first node and a signal of the third input terminal to the output terminal according to a voltage applied to the second node.” As shown in the annotated image below (Fig. 72) the outputting unit comprises at least transistors T4 and T5 and capacitors C1 and C2. The outputting unit has a first node (e.g., between the gates of transistors T3 and T4) and a second node (e.g., between the gate of transistor T5 and the output of the first driver).

**Figure 72**

153. As shown in the annotated image above (Fig. 72), the outputting unit supplies the voltage of a first power supply (e.g., VGH) to the output terminal (e.g., OUT1), according to a voltage applied to the first node, and a signal of the third input terminal (e.g., IN3) to the output terminal (e.g., OUT1) according to a voltage applied to the second node. As shown in Figure 81, transistors T4 and T5 supply a voltage/signal to OUT1 depending upon the voltage between the gates of transistors T3 and T4 and the voltage between the gate of transistor T5 and the output of the first driver. VGH is coupled to an electrode of transistor T4, such that when a voltage is applied to the node between the gates of transistors T3 and T4, transistor T4 is turned on and VGH is supplied to OUT1. OUT1 is coupled to an electrode of transistor T5 such that when a voltage is applied to a

node between the gate of transistor T5 and the output of the first driver, transistor T5 is turned on and IN3 is supplied to OUT1.

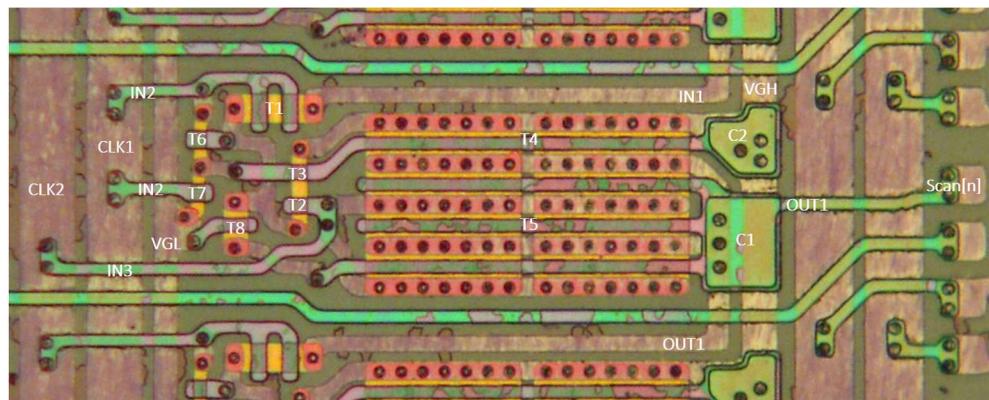
154. The BOE OLED Display contains a stage circuit that includes “a first driver to control the voltage of the second node in accordance with signals of the first input terminal, the second input terminal, and the third input terminal.” As shown in the annotated image below (Fig. 73), the stage circuit contains a first driver comprising at least transistors T1, T2, and T3. The first input terminal (e.g., IN1) is coupled to an electrode of transistor T1. The second input terminal (e.g., IN2) is coupled to the gate electrode of transistor T1. The third input terminal (e.g., IN3) is coupled to the gate electrode of transistor T2. Accordingly, the first driver controls the voltage of the second node (e.g., the voltage between the gate of transistor T5 and the output of the first driver) based on the signals of the first input terminal (e.g., IN1), the second input terminal (e.g., IN2), and third input terminal (e.g., IN3)..



**Figure 73**

155. As shown in the annotated image above (Fig. 73), IN1 is coupled to transistor T1, and the gate electrode of transistor T1 is coupled to IN2. The transistors T2 and T3 are coupled in series to the drain of transistor T1, and IN3 is coupled to the gate electrode of transistor T2. The signals applied to IN1, IN2, and IN3 control the voltage between the output of the first driver and the gate of transistor T5.

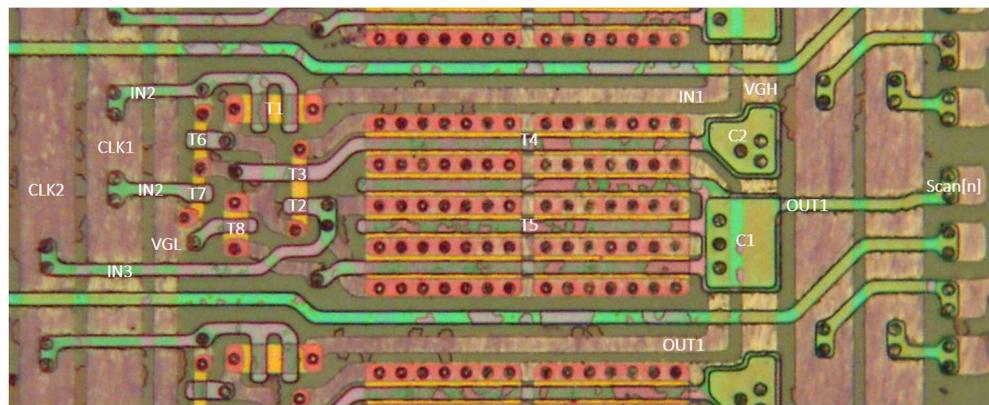
156. The BOE OLED Display contains a stage circuit that includes “a second driver to control the voltage of the first node in accordance with the signal of the second input terminal and the voltage of the second node.” As shown in the annotated image below (Fig. 74), the stage circuit contains a second driver comprising at least transistors T6 and T7. The signal of the second input terminal (e.g., IN2) is applied to the gate electrode of transistor T7 and an electrode of T6, and thereby controls the voltage of the first node (e.g., the voltage between the gates of transistors T3 and T4). The voltage of the second node (e.g., the voltage between the gate electrode of transistor T5 and the output of the first driver) is applied to the gate electrode of transistor T6, thereby controlling the voltage of the first node (e.g., the voltage between the gate electrodes of transistors T3 and T4).



**Figure 74**

157. As shown in the annotated image above (Fig. 74), IN2 is coupled to the gate of transistor T7, which is coupled between VGL and the node between the gates of transistors T3 and T4. The signal at IN2 controls whether VGL is applied between the gates of transistors T3 and T4. An electrode of transistor T6 is coupled between the gates of transistors T3 and T4 and IN2, and the voltage at the output of the first driver is coupled to the gate of transistor T6, thereby controlling when transistor T6 is on. When transistor T6 is on, it couples the node between the gates of transistors T3 and T4 to the signal present on IN2.

158. The BOE OLED Display contains a stage circuit in which “the signal of the third input terminal directly controls an on/off operation of a transistor, the transistor included in the first driver.” As shown in the annotated image below (Fig. 75), the third input terminal (e.g., IN3) is coupled to the gate electrode of transistor T2 and the signal of the third input terminal directly controls the on/off operation of transistor T2. As described above, transistor T2 is included in the first driver.



**Figure 75**

159. Upon information and belief, and as shown above in the example of the BOE OLED Display used in the Nubia Z60 Ultra product, the Accused Products meet every limitation of at least claim 1 of the '593 Patent.

160. By making, using, offering for sale, selling, and/or importing into the United States the Accused Products, including the OLED displays used in Nubia Z60 Ultra products, BOE directly infringes at least claim 1 of the '593 Patent.

161. Upon information and belief, BOE has induced infringement of the '593 Patent under 35 U.S.C. § 271(b) by knowingly and intentionally inducing others to directly infringe the '593 Patent. Despite having notice of the '593 Patent—including through at least its receipt of Samsung Display’s May 2, 2022 notice letter specifically informing BOE of its infringing activity—BOE has actively encouraged others to infringe the patent. For example, upon information and belief, BOE

has knowingly and intentionally induced third-party manufacturers, shippers, distributors, and/or retailers to directly infringe (literally and/or under the doctrine of equivalents) the '593 Patent by using, offering to sell, and/or selling in the United States, and/or importing into the United States, products containing infringing BOE OLED displays. BOE's OLED displays are especially designed to contain features that infringe the '593 Patent and the Accused Products have no substantial uses other than ones that infringe the '593 Patent.

162. Moreover, upon information and belief, BOE takes active steps, directly and/or through contractual relationships with others, with the specific intent to cause such persons to use, offer to sell, sell, and/or import products containing BOE OLED displays that infringe at least claim 1 of the '593 Patent. Upon information and belief, such steps by BOE include, among other things, making or selling the Accused Products, including BOE OLED displays for at least the Nubia Z60 Ultra products, for importation into or sale in the United States, knowing that such importation or sale would occur. Indeed, Mianyang BOE has admitted in the -1351 Proceeding that it manufactures and sells AMOLED screens that are imported into the United States. Upon information and belief, Mianyang BOE was thus aware that its infringing OLED displays would be imported into the US (and that use of the infringing OLED displays would infringe), yet it sold those displays to those customers anyway. Upon information and belief, BOE has engaged in these activities with knowledge of the '593 Patent and knowledge that the induced acts constitute infringement. BOE's inducement of infringement of the '593 Patent is ongoing.

163. Upon information and belief, BOE has also contributorily infringed the '593 Patent under 35 U.S.C. § 271(c) through its supply of BOE OLED displays to customers that incorporate those OLED displays into other products, including at least the Nubia Z60 Ultra product. The BOE OLED displays have no substantial non-infringing uses and are especially designed and made for

use in devices that infringe the '593 Patent. BOE has engaged in these activities despite having notice of the '593 Patent, and the OLED displays that BOE has sold and/or provided to customers embody a material part of the claimed invention of at least claim 1 of the '593 Patent. BOE's contributory infringement of the '593 Patent is ongoing.

164. Upon information and belief, BOE's infringement has been, and continues to be, willful. For example, upon information and belief, BOE has been on notice of the '593 Patent and its infringement of the '593 Patent since at least its receipt of Samsung Display's May 2, 2022 notice letter specifically informing BOE of its infringing activity. Yet, BOE has continued its infringing activities.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff Samsung Display prays for relief as follows:

- A. A judgment that each of the Defendants has willfully infringed, directly or indirectly, each of the Asserted Patents;
- B. Compensatory damages in an amount commensurate with Defendants' infringement of the Asserted Patents, including without limitation lost profits and no less than a reasonable royalty;
- C. Pre-judgment interest on all damages awarded to Plaintiff;
- D. Post-judgment interest on all sums awarded to Plaintiff from the date of the judgment;
- E. An award of treble damages pursuant to 35 U.S.C. § 284;
- F. An award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285; and
- G. Any and all other relief that the Court deems just and equitable.

#### **JURY DEMAND**

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff Samsung Display hereby demands a jury trial on all issues raised by this complaint.

Dated: May 28, 2025.

Respectfully submitted,

*/s/ Craig C. Reilly*

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